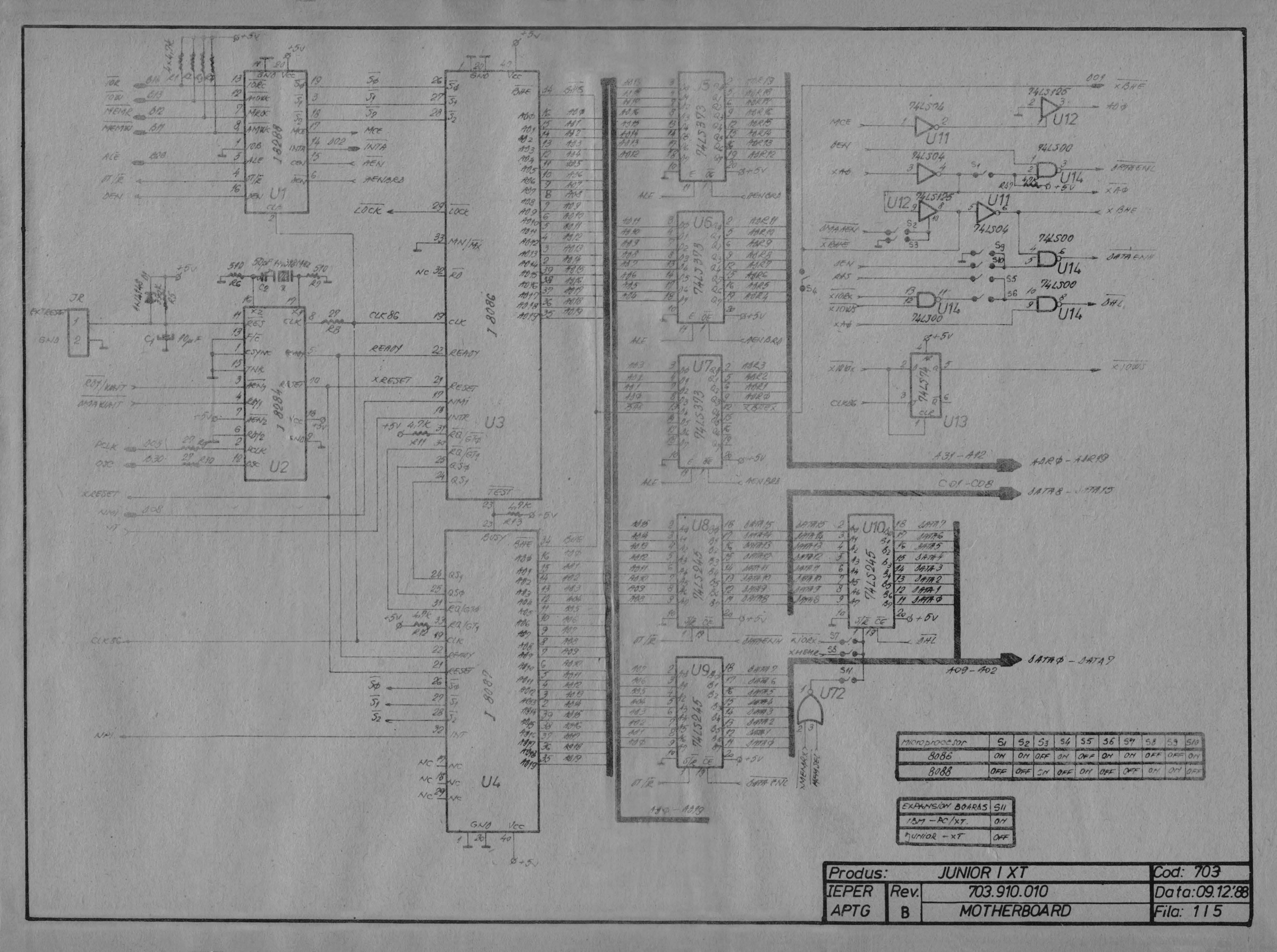
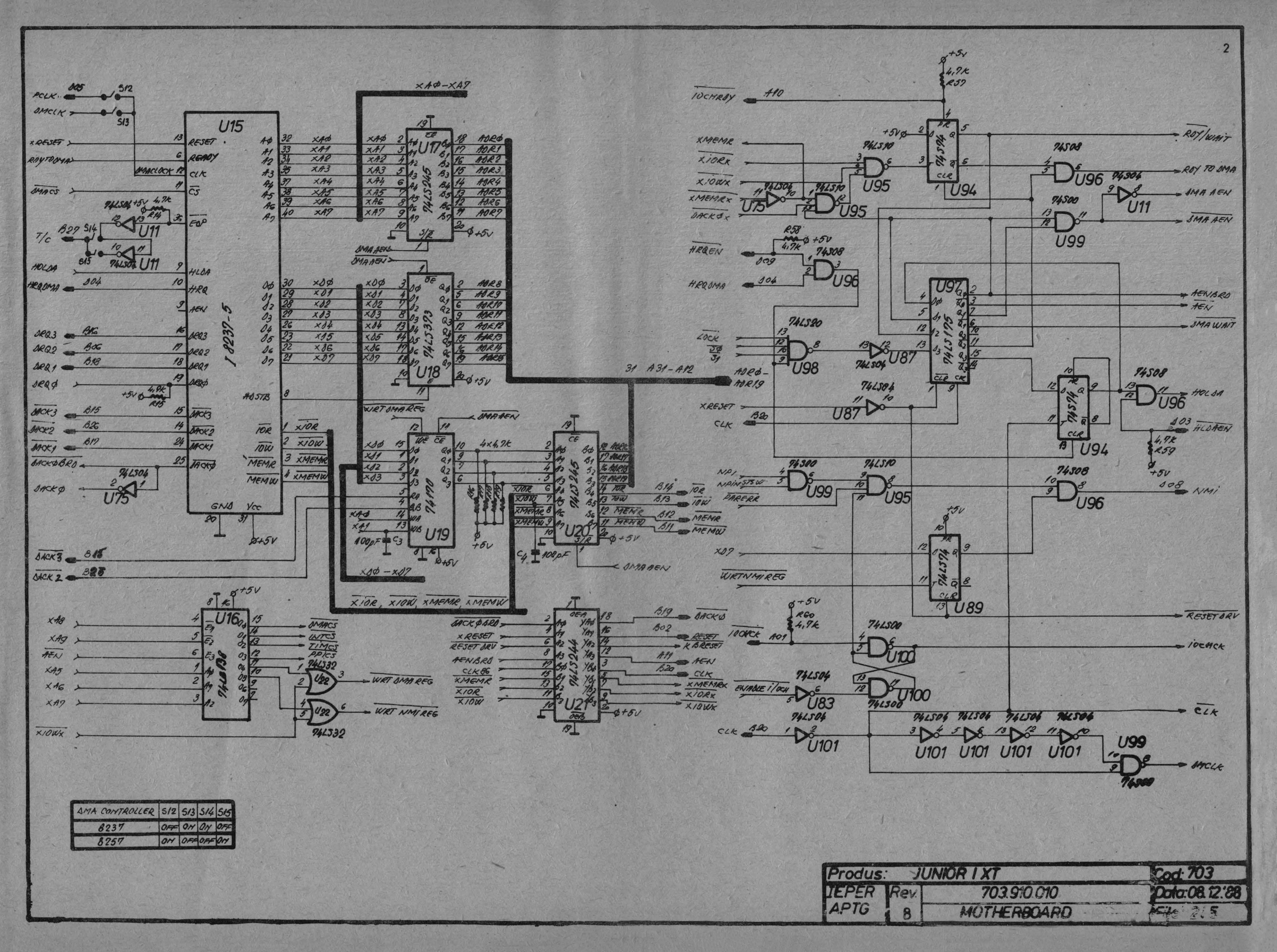


Microprocesor	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10
8086	ON	ON	OFF	ON	OFF	ON	ON	OFF	OFF	ON
8088	OFF	OFF	ON	OFF	ON	OFF	OFF	ON	ON	OFF

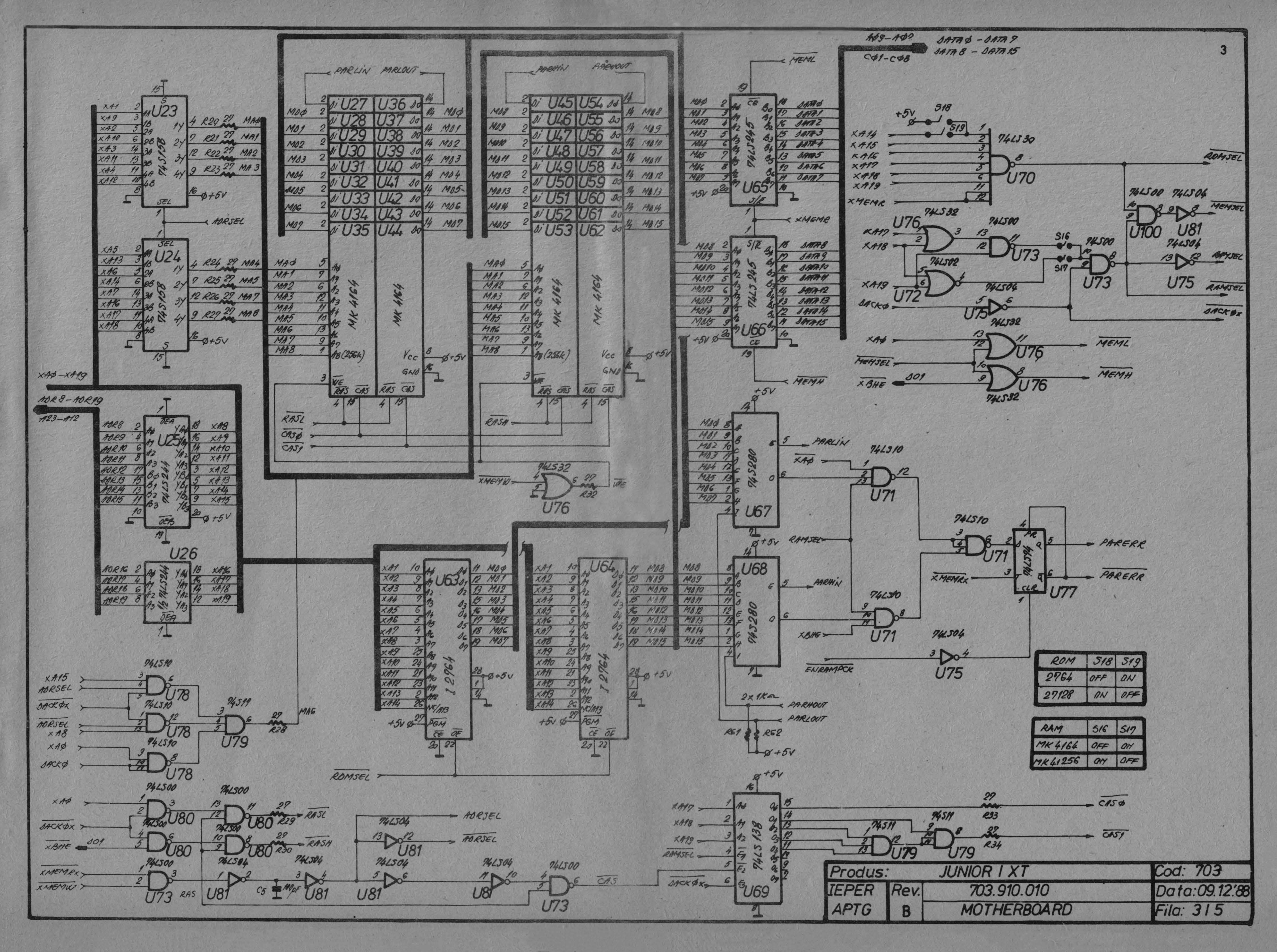
EXPANSION BOARDS	S11
IBM - PC/XT.	ON
JUNIOR - XT	OFF

Produs:	JUNIOR I XT		Cod: 703
IEPER	Rev.	703.910.010	Data: 09.12.'88
APTG	B	MOTHERBOARD	Fila: 1 1 5

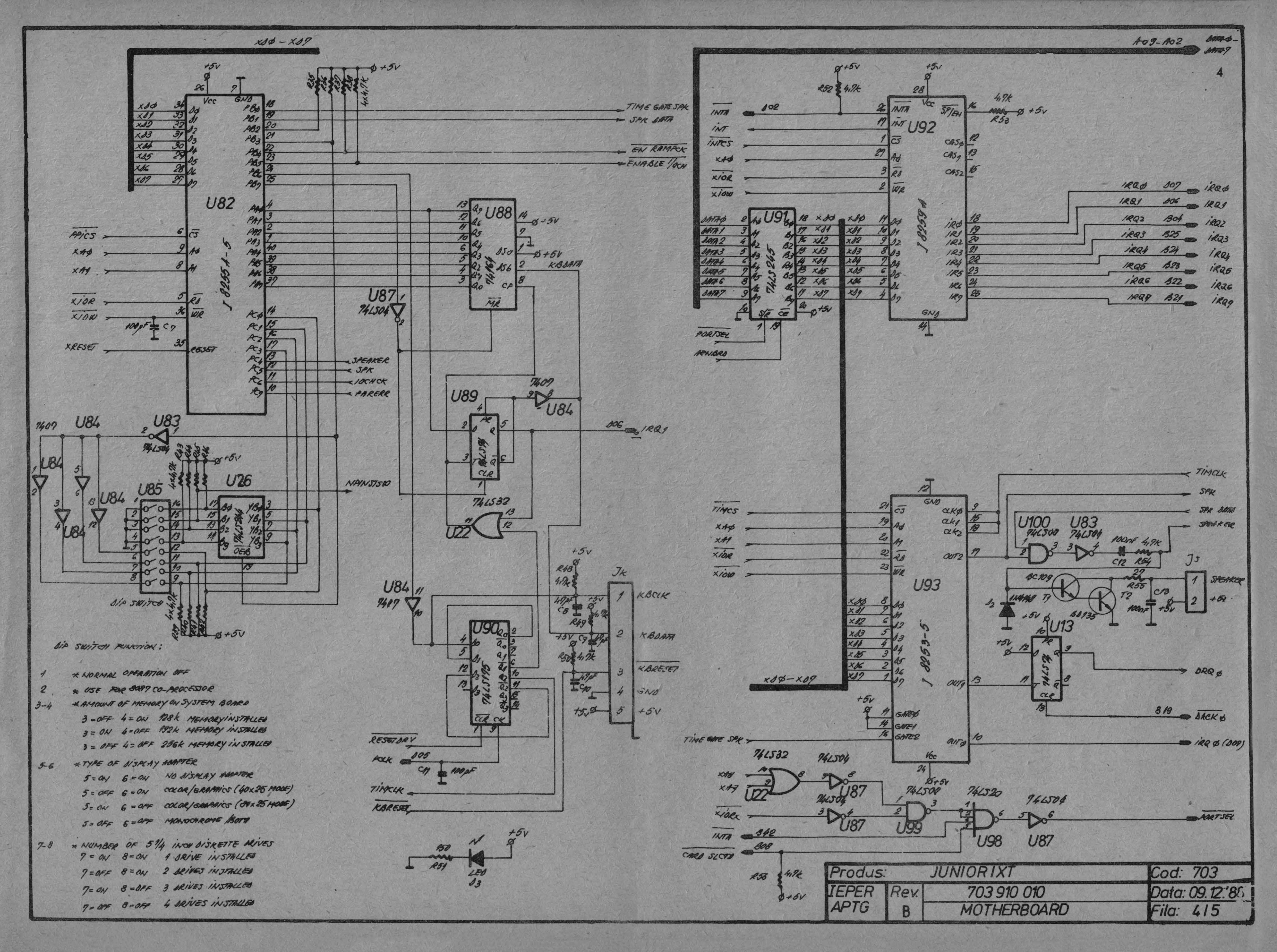


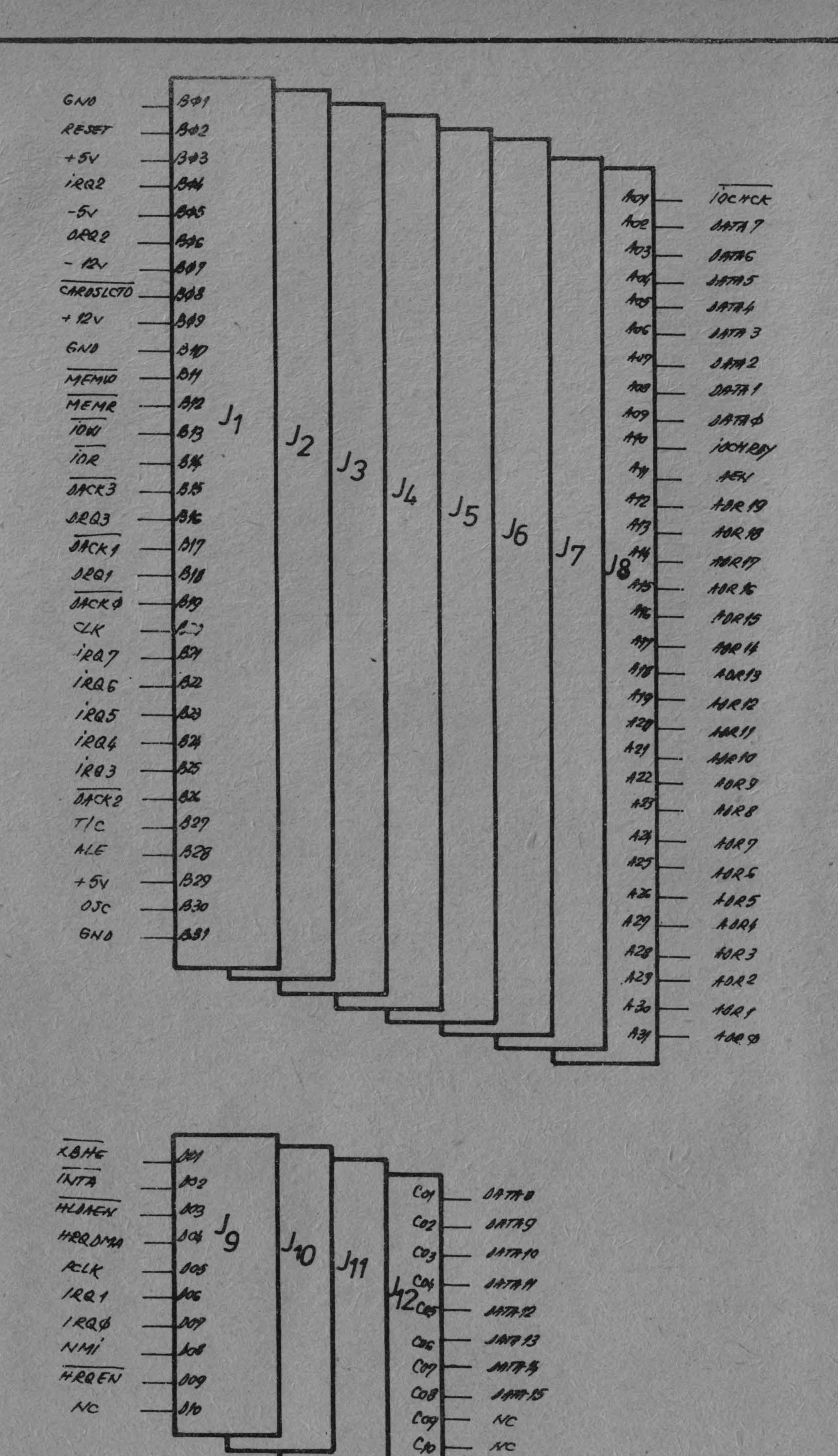
DMA CONTROLLER	S12	S13	S14	S15
8237	OFF	ON	ON	OFF
8257	ON	OFF	OFF	ON

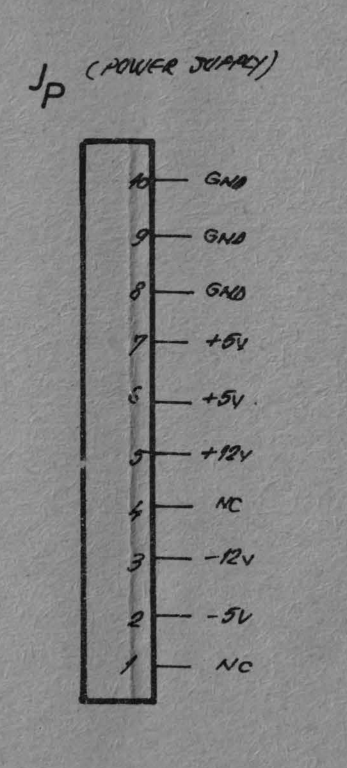
Produs:	JUNIOR I XT		Cod: 703
IEPER APTG	Rev. 8	703.910.010	Data: 08.12.'88
		MOTHERBOARD	File: 2/5

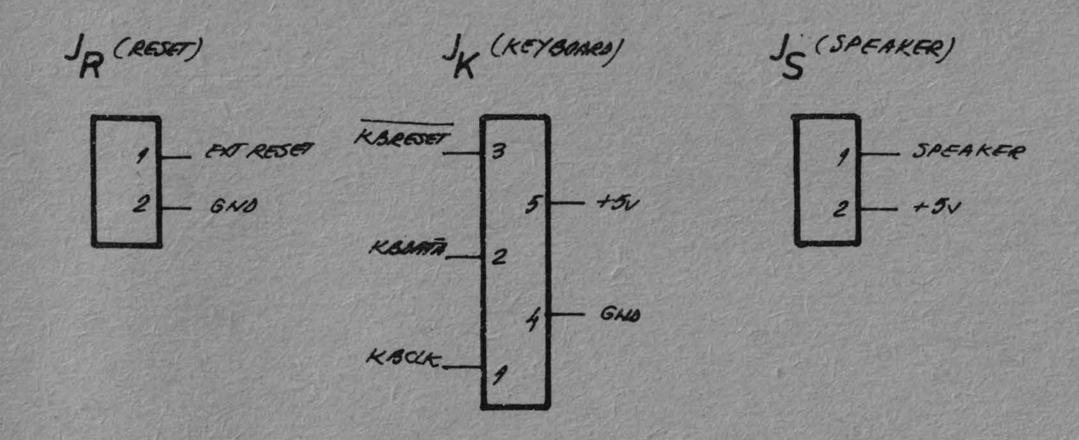


U23 74S158
U24 74S158
U25 74LS244
U26 74LS244
XA0-XA19
ADR8-ADR19
A23-A12
ADRSEL
PARLIN PARLOUT
U27 U28 U29 U30 U31 U32 U33 U34 U35
U36 U37 U38 U39 U40 U41 U42 U43 U44
MK 4164
U45 U46 U47 U48 U49 U50 U51 U52 U53
U54 U55 U56 U57 U58 U59 U60 U61 U62
RASL
CAS0
CAS1
RASH
XMEMW
U76 74LS32
U63 2764
U64 2764
U65 74LS245
U66 74LS245
MEML
MEMH
XMEMR
DATA0 - DATA7
DATA8 - DATA15
U67 74S280
U68 74S280
PARERR
U77 74LS74
ENRAMPCK
U70 74LS30
ROMSEL
MEMSEL
RAMSEL
DACK0X
U69 74LS138
U78 74LS10
U79 74S11
U80 74LS00
U81 74LS04
U73 74LS00
U71 74LS10
U72 74LS02
U75 74LS04
U100 74LS00
XBHE
S16 S17 S18 S19
ROM | S18 | S19
2764 | OFF | ON
27128 | ON | OFF
RAM | S16 | S17
MK 4164 | OFF | ON
MK 41256 | ON | OFF
Produs: JUNIOR I XT
Cod: 703
IEPER APTG
Rev. B
703.910.010
MOTHERBOARD
Data: 09.12.'88
Fila: 315

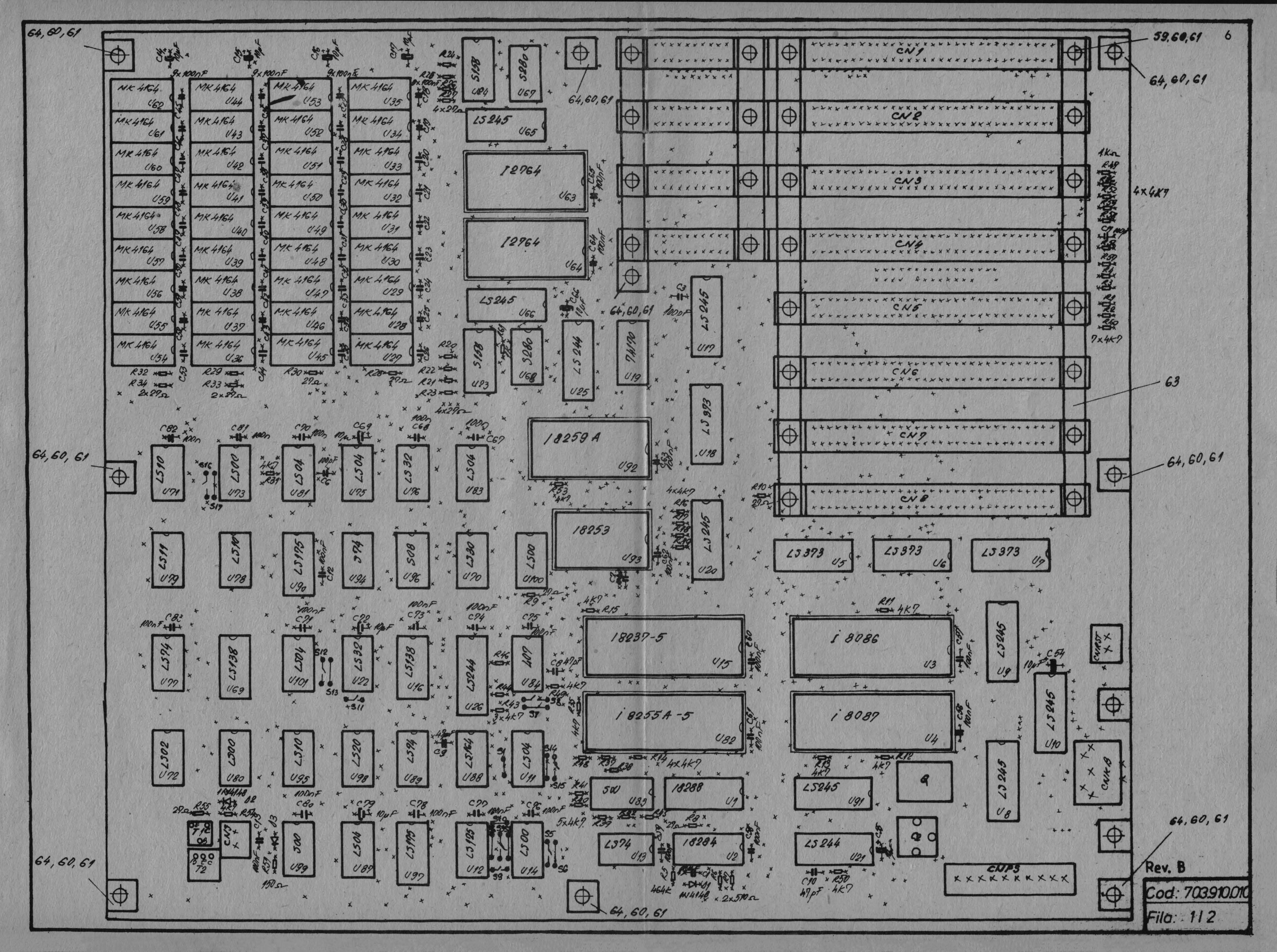

4
XD0 - XD7
A09 - A02
U82
I 8255A-5
U88
74LS164
U87
74LS04
U89
74LS74
U84
7407
U83
74LS04
U85
DIP SWITCH
U26
74LS244
U22
74LS32
U90
74LS175
U91
74LS245
U92
I 8259A
U93
I 8253-5
U100
74LS00
U13
74LS74
U99
74LS00
U98
74LS20
TIME GATE SPK
SPK DATA
EN RAMPCK
ENABLE I/OCH
PPICS
XIOR
XIOW
XRESET
SPEAKER
SPK
IOCHCK
PARERR
NPNSTSTO
KBDATA
KBCLK
KBRESET
GND
+5V
RESETDRV
PCLK
TIMCLK
INTA
INT
INTCS
PORTSEL
AENBRD
IRQ0
IRQ1
IRQ2
IRQ3
IRQ4
IRQ5
IRQ6
IRQ7
TIMCS
SPK DATA
DRQ0
DACK0
IRQ0 (DOP)
CARD SLCTD
PORTSEL
BC109
BD135
LED
DIP SWITCH FUNCTION:
1 * NORMAL OPERATION OFF
2 * USE FOR 8087 CO-PROCESSOR
3-4 * AMOUNT OF MEMORY ON SYSTEM BOARD
3 = OFF 4 = ON 128k MEMORY INSTALLED
3 = ON 4 = OFF 192k MEMORY INSTALLED
3 = OFF 4 = OFF 256k MEMORY INSTALLED
5-6 * TYPE OF DISPLAY ADAPTER
5 = ON 6 = ON NO DISPLAY ADAPTER
5 = OFF 6 = ON COLOR/GRAPHICS (40x25 MODE)
5 = ON 6 = OFF COLOR/GRAPHICS (80x25 MODE)
5 = OFF 6 = OFF MONOCHROME /BOTH
7-8 * NUMBER OF 5 1/4 INCH DISKETTE DRIVES
7 = ON 8 = ON 1 DRIVE INSTALLED
7 = OFF 8 = ON 2 DRIVES INSTALLED
7 = ON 8 = OFF 3 DRIVES INSTALLED
7 = OFF 8 = OFF 4 DRIVES INSTALLED
Produs: JUNIORIXT
Cod: 703
IEPER APTG
Rev. B
703 910 010
MOTHERBOARD
Data: 09.12.'8
Fila: 415







Produs:		JUNIOR I XT	Cod: 703
IEPER APTG	Rev. B	703.910.010	Data: 09.12.'88
		MOTHERBOARD	Fila: 515



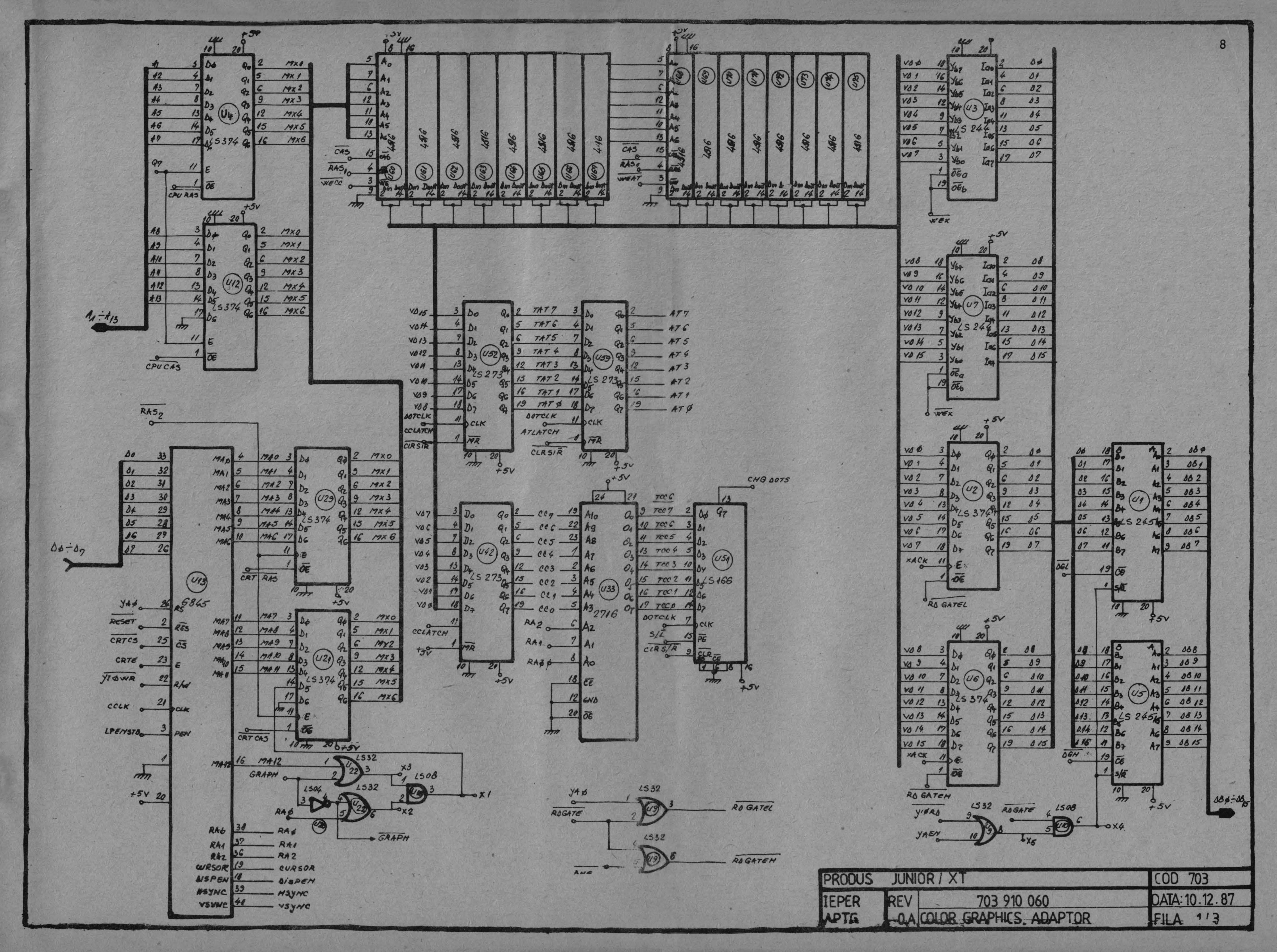
64, 60, 61
59, 60, 61
63
CN1
CN2
CN3
CN4
CN5
CN6
CN7
CN8
CNP3
MK 4164
I2764
U63
U64
LS245
U65
U66
18259 A
U92
18253
U93
18237-5
U15
i 8255 A-5
U82
i 8086
U3
i 8087
U4
LS373
U5
U6
U9
18288
U1
18284
U2
LS244
U21
LS245
U91
LS374
U13
Rev. B
Cod: 703.910.010
Fila: 112

7

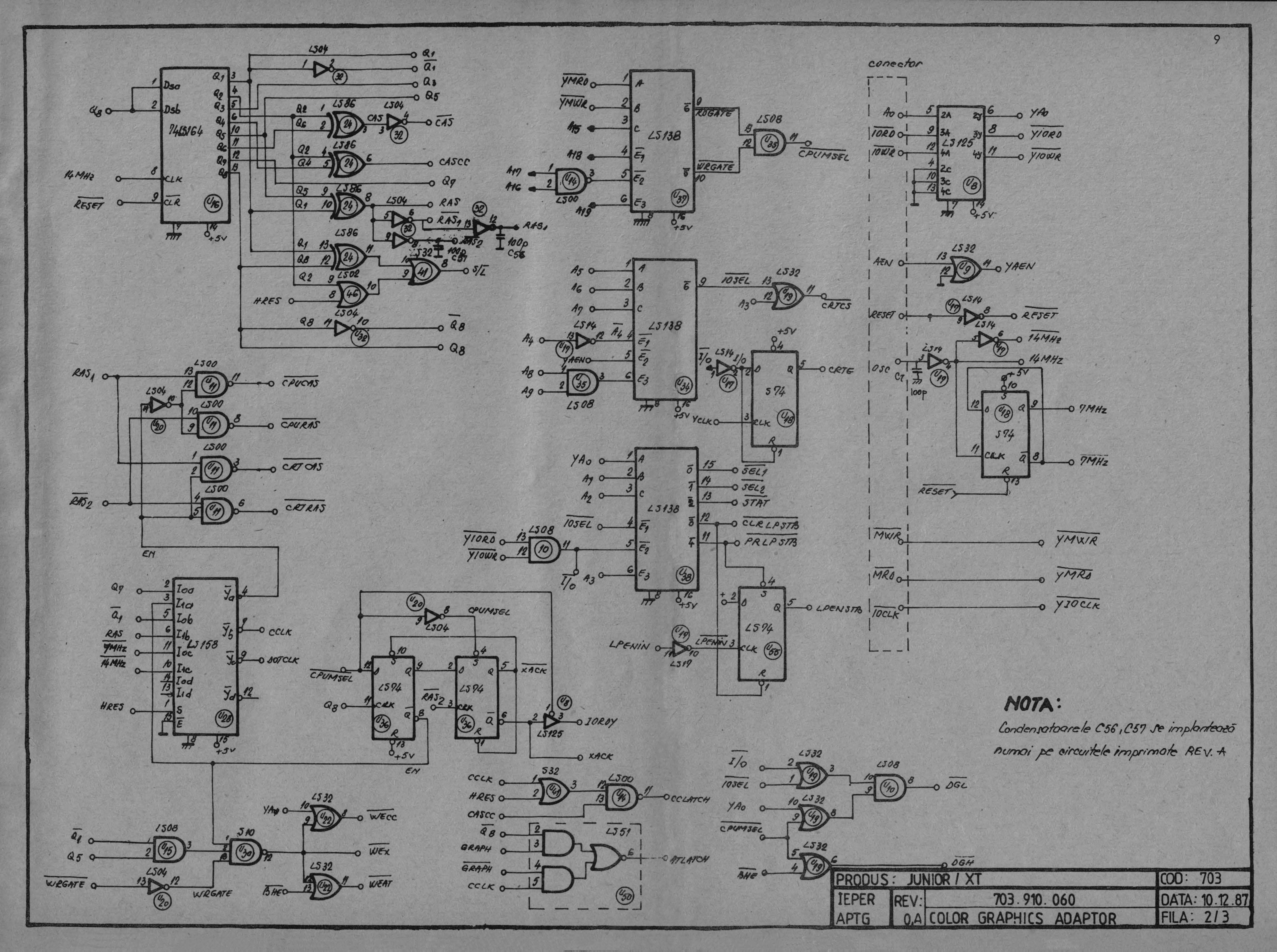
Poz	Simbol	Denumirea	Cod	Observatii	Cant
64		Distanțieri plagă	286.000.011.		9
63		Rigidizare	703.110.010		4
62	U4	Circuit integrat	i 8087	optional	1
61		Șaibă izolatoare	211010xx		42
60		Piuliță hexagonală	316.110.030		33
59		Șurub M3x20	STAS 10295/80		24
58	CN1÷CN8	conector mamă	300.650		8
57	CNKB	conector mamă 5 contacte	303.608 A		1
56	CN5, CNRST	conector MOLEX tată 2 contacte	201.649		2
55	CNPS	Conector MOLEX tată 10 contacte	201.652		1
54	U85	Intrerupător prin translație	200.025 A		4
53	C2	Condensator 30-40pF	CT 1080 V		1
52	U93	Soclu ci 24 pini	779.190.19		1
51	U63, U64, U92	Soclu ci 28 pini	779.190.20		3
50	U3, U4, U15, U82	Soclu ci 40 pini	779.190.21		4
49	Q	Cuarț 14,318 MHz			1
48	D3	Led	MBE H01R		1
47	D1, D2	Diodă	1N4148		2
46	T1	Tranzistor	BC 107		1
45	T2	Tranzistor	BD 135		1
44	C69, C72, C79	Condensator 10µF/16V	CTSP 1042		11
	C1, C14÷C49, C54, C55, C66,				
	C73÷C78, C80÷C83				
	C60÷C65, C67, C68, C70, C71.				
43	C12, C13, C16÷C53, C55÷C58	Condensator 100nF/10%/50V	MX 3203		62
42	C8, C9, C10	Condensator 47pF/10%/50V	MC 3202		3
41	C3, C6, C9, C11	Condensator 100pF/10%/50V	MC 3202		4
40	R6, R7	Rezistență 510Ω/5%/0,25W	RPM 3025		2
39	R51	Rezistență 150Ω/5%/0,25W	RPM 3025		1
38	R8÷R10, R20÷R30, R32÷R34	Rezistență 27Ω/5%/0,25W	RPM 3025		17
37	R55	Rezistență 27Ω/2%/0,5W	RPM 3050		1
36	R5	Rezistență 464k/2%/0,25W	RPM 3025		1
35	R35÷R50, R52÷R54, R56÷R6[illegible]				

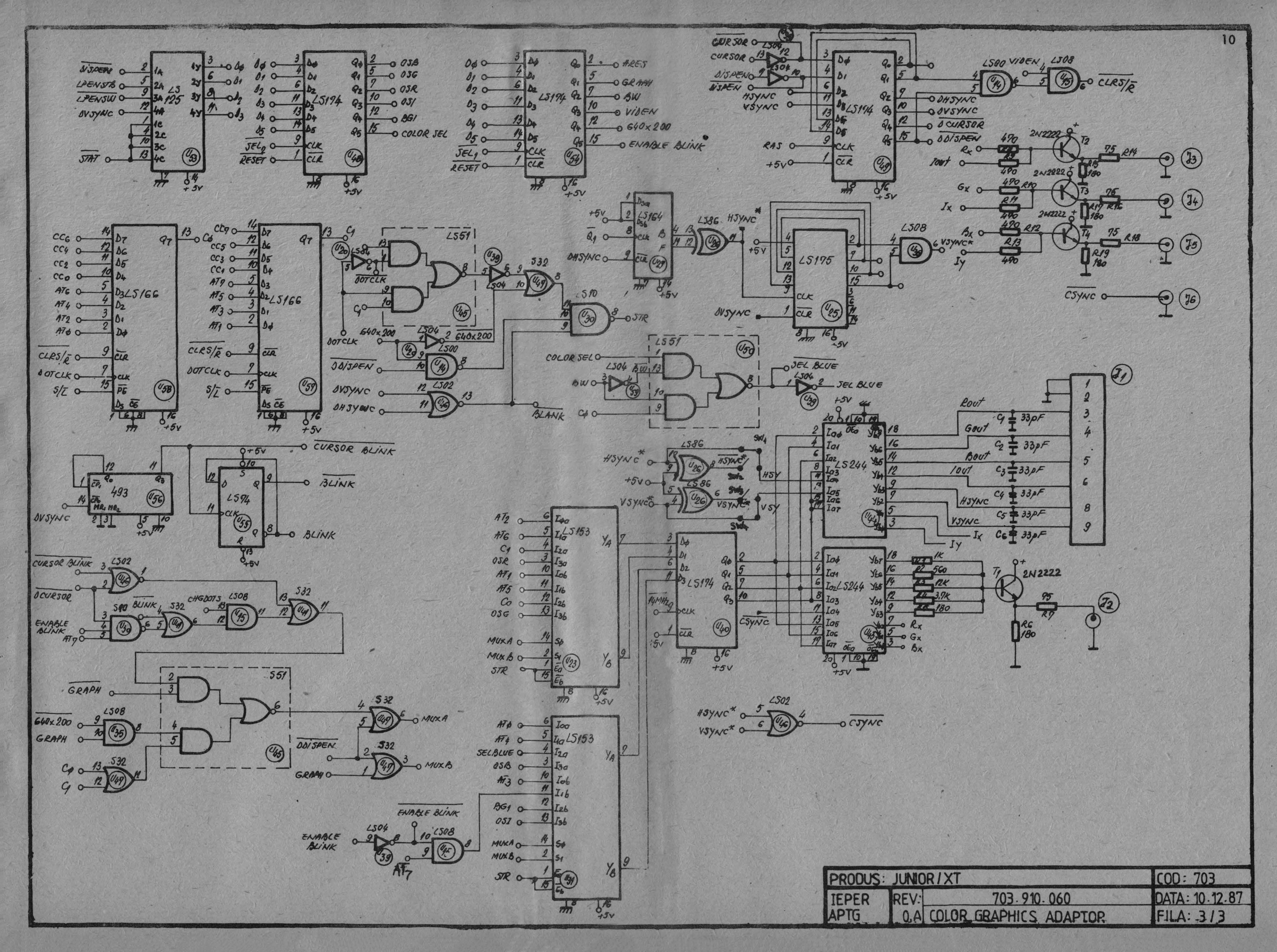
Poz	Simbol	Denumirea	Cod	Observatii	Cant.
	R1÷R4, R11÷R19, R31	Rezistență 4K7/5%/0,25W	RPM 3025		37
34	R61, R62	Rezistență 1k/5%/0,25W	RPM 3025		2
33	U84	Circuit integrat	CDB 407		1
32	U94	Circuit integrat	74S74	K531TM2P	1
31	U96	Circuit integrat	74S08	KM531LI1	1
30	U99	Circuit integrat	74S00	K531LA3P	1
29	U88	Circuit integrat	74LS164	K555IR8	1
28	U70	Circuit integrat	74LS30	K555LA2	1
27	U98	Circuit integrat	74LS20	K555LA1	1
26	U72	Circuit integrat	74LS02	K555LE1	1
25	U73, U77, U89	Circuit integrat	74LS74	K555TM2	3
24	U22, U96	Circuit integrat	74LS32	K555LL1	2
23	U79	Circuit integrat	74LS11	K555LI3	1
22	U71, U78, U95	Circuit integrat	74LS10	K555LA4	3
21	U74, U93, U80, U100	Circuit integrat	74LS00	K555LA3	4
20	U83, U87, U101	Circuit integrat	74LS04	K555LN1	6
	U11, U75, U81				
19	U12	Circuit integrat	74LS125	K555LP8	1
18	U90, U97	Circuit integrat	74LS175	K555TM8	2
17	U16, U69	Circuit integrat	74LS138	K555ID7	2
16	U19	Circuit integrat	74S170	K155RP1	1
15	U23, U24	Circuit integrat	74S158/74S258	K531RP[illegible]	2
14	U67, U68	Circuit integrat	74S280	K531IP5P	2
13	U21, U25, U26	Circuit integrat	74LS244	K555AP5	3
12	U5, U6, U7, U18	Circuit integrat	74LS373	K555IR22	4
11	U17, U20, U65, U66, U91,	Circuit integrat	74LS245	K555AP6	8
	U8, U9, U10				
10	U27÷U62	Circuit integrat	MK 4164	K565RU5G	36
9	U63, U64	Circuit integrat	i 2764/128	K573RF4/6	2
8	U2	Circuit integrat	i 8284	KR1810GF84	1
7	U1	Circuit integrat	i 8288	KR1810VG88	1
6	U92	Circuit integrat	i 8259 A	KR1810VN59A	1
5	U93	Circuit integrat	i 8253	KR580VI53	1
4	U82	Circuit integrat	i 8255A-5	KR580IK55	1
3	U15	Circuit integrat	i 8237-5		1
2	U3	Circuit integrat	i 8086	KR1810VM86	1
1		Circuit imprimat	703.910.011	Rev. B	1

Produs:		JUNIOR-XT	Cod: 703
IEPER APTG	Rev. B	703 910 010	Data: 5.12.'88
		MOTHERBOARD	Fila: 212

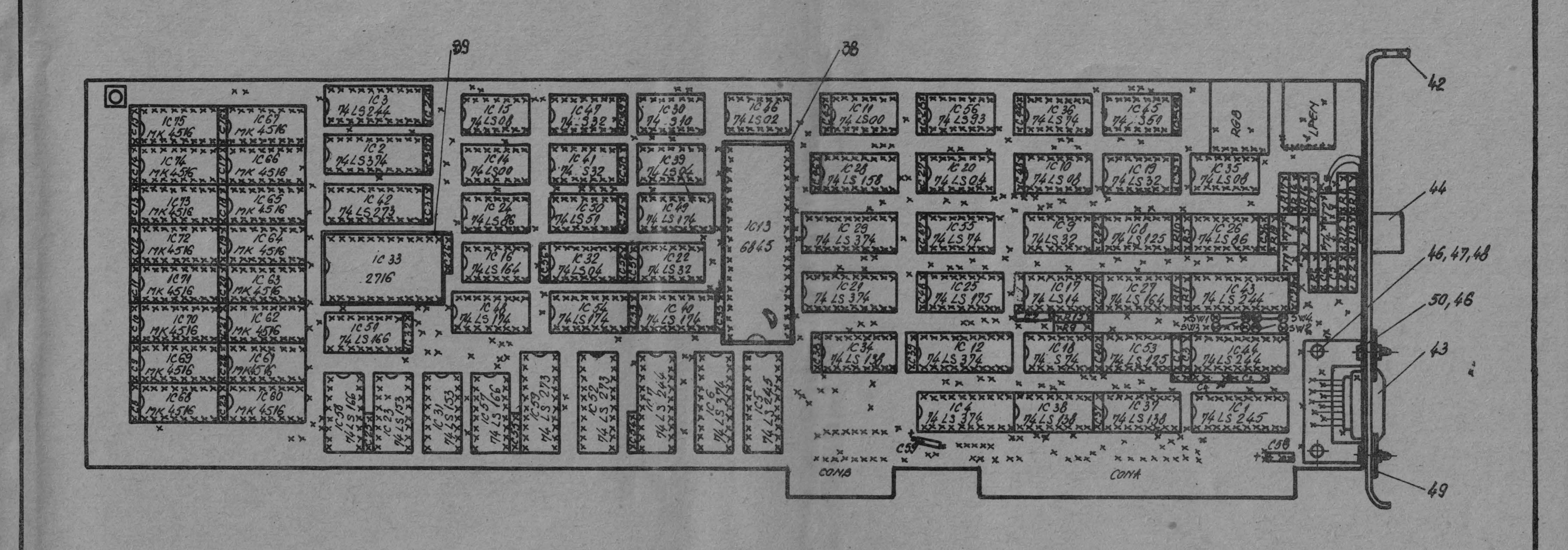


U4 LS374
U12 LS374
U13 6845
U29 LS374
U21 LS374
U52 LS273
U53 LS273
U42 LS273
U33 2716
U54 LS166
U3 LS 244
U7 LS 244
U2 LS 374
U6 LS 374
U1 LS 245
U5 LS 245
LS32
LS08
LS04
A1÷A13
D0÷D7
CPU RAS
CPU CAS
CRT RAS
CRT CAS
CHG DOTS
RD GATEL
RD GATEH
PRODUS JUNIOR / XT
COD 703
IEPER
APTG
REV
703 910 060
DATA: 10.12.87
0A COLOR GRAPHICS ADAPTOR
FILA 1/3


conector
74LS164
LS04
LS86
LS138
LS08
LS125
LS32
LS14
LS00
S74
LS158
LS74
S32
LS51
S10
CAS
CASCC
RAS
CPUCAS
CPURAS
CRTCAS
CRTRAS
CPUMSEL
CRTCS
CRTE
7MHz
14MHz
SEL1
SEL2
STAT
CLR LPSTB
PRLPSTB
LPENSTB
LPENIN
YMWR
YMRD
YIOCLK
IORDY
XACK
CCLATCH
DGL
DGH
WECC
WEX
WEAT
ATLATCH
NOTA:
Condensatoarele C56, C57 se implantează numai pe circuitele imprimate REV. A
PRODUS: JUNIOR / XT
COD: 703
IEPER
APTG
REV:
0,A
703.910.060
COLOR GRAPHICS ADAPTOR
DATA: 10.12.87
FILA: 2/3



PRODUS: JUNIOR / XT
COD: 703
IEPER APTG
REV: 0.A
703.910.060
COLOR GRAPHICS ADAPTOR
DATA: 10.12.87
FILA: 3/3
LS125
LS174
LS166
LS51
LS04
LS00
LS02
LS08
S32
LS164
LS86
LS175
493
LS74
LS153
LS244
2N2222
CURSOR
DISPEN
HSYNC
VSYNC
DHSYNC
DVSYNC
LPENSTB
LPENSW
STAT
RESET
COLOR SEL
ENABLE BLINK
GRAPH
BW
VIDEN
640x200
ARES
CLRS/R
DOTCLK
S/L
STR
BLANK
CURSOR BLINK
BLINK
CHGDOTS
SEL BLUE
MUXA
MUXB
14MHz
RAS
Rout
Gout
Bout
Iout
Rx
Gx
Bx
Ix
Iy
CSYNC
HSYNC*
VSYNC*
33pF
490
75
180
560
1K
1,2K
3,9K
J1
J2
J3
J4
J5
J6
+5V

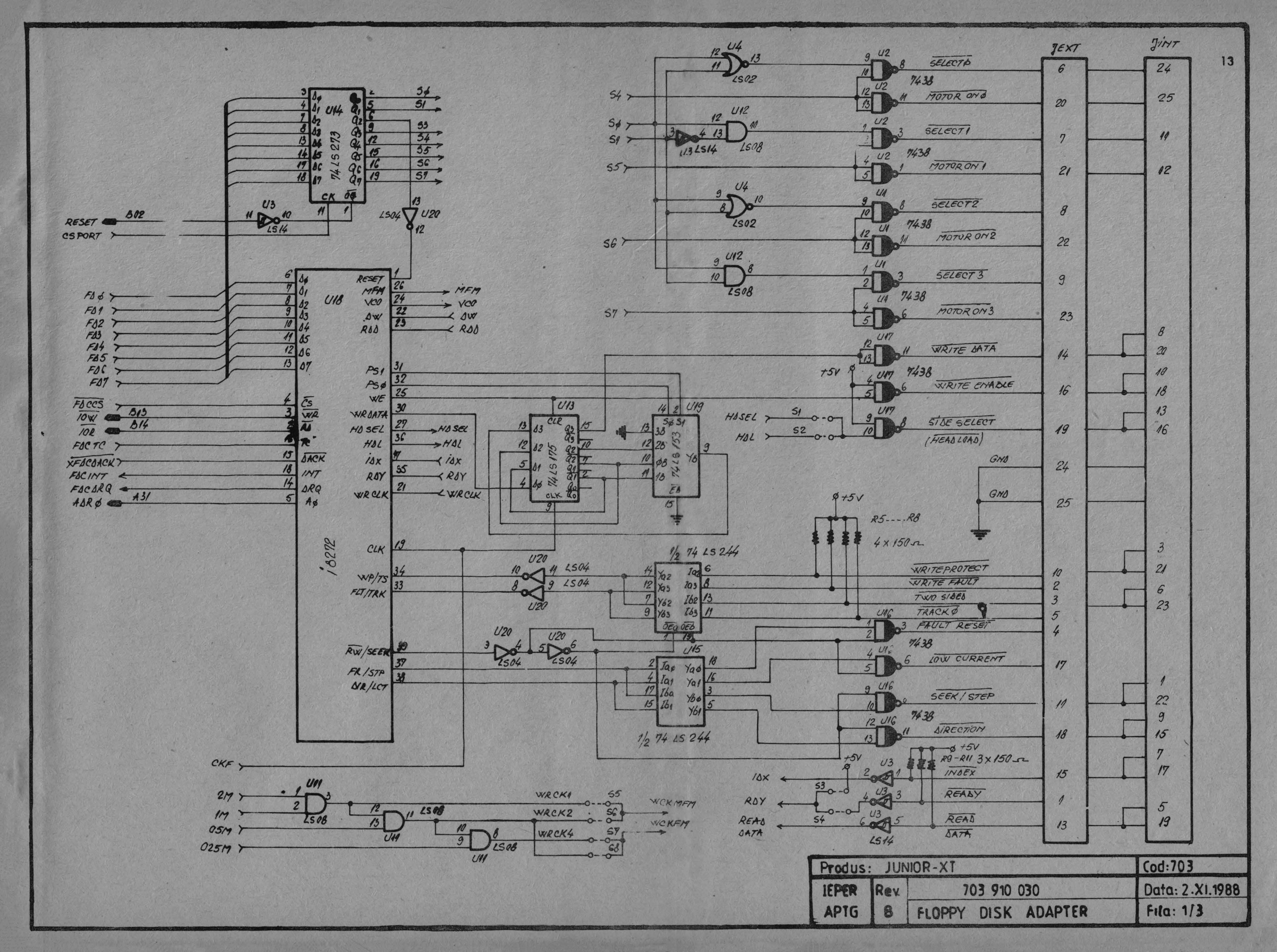


Produs - XT			Cod : 703
IEPER	Rev.	703 910 060	Data :1.07.'88
APTG	0.A	COLOR GRAPHICS ADAPTOR	Fila 1/2

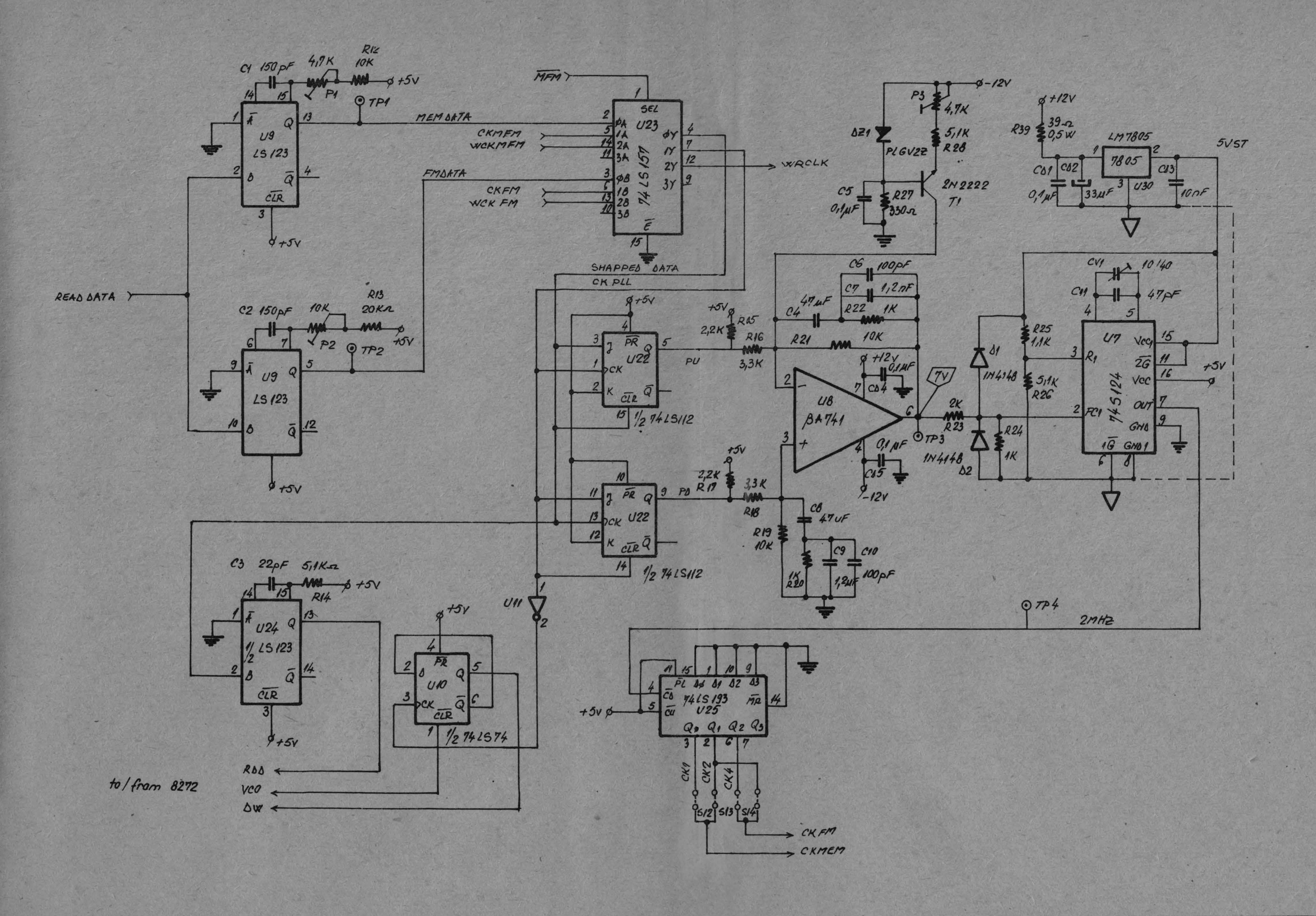
Poz	Simbol	Denumirea	Cod	Observatii	Cant
37	T1÷T4	Tranzistor	2N2222		4
36	C8÷C55	Condensator 100n/10%/50V	MR 3202		48
35	C1÷C6	Condensator 33p/10%/50V	MC 3202		6
34	R3	Rezistentă 12K/5%/0,25W	RPM 3025		1
33	R4	Rezistentă 3K7/5%/0,25W	RPM 3025		1
32	R1	Rezistentă 1K2/5%/0,25W	RPM 3025		1
31	R2	Rezistentă 560Ω/5%/0,25W	RPM 3025		1
30	R8÷R13	Rezistentă 470Ω/5%/0,25W	RPM 3025		6
29	R5, R6, R15, R17, R19	Rezistentă 180Ω/5%/0,25W	RPM 3025		5
28	R7, R14, R16 R18	Rezistentă 75Ω/5%/0,25W	RPM 3025		4
27	ic 56	Circuit integrat	CD 493	K555 IE5	1
26	ic 24, ic 26	Circuit integrat	74LS86	K555 LP5	2
25	ic 36, ic 55	Circuit integrat	74LS74	K555 TM2	2
24	ic 50	Circuit integrat	74LS51	K555 LR11	1
23	ic 9, ic 19, ic 22,	Circuit integrat	74LS32	K555 LL1	3
22	ic 17	Circuit integrat	74LS14	K555 TL2	1
21	ic 30	Circuit integrat	74 S10	K531 LA4P	1
20	ic 10, ic 15, ic 35	Circuit integrat	74LS08	K555 LI1	3
19	ic 20, ic 32, ic 39,	Circuit integrat	74LS04	K555 LN1	3
18	ic 46	Circuit integrat	74LS02	K555 LE1	1
17	ic 11, ic 14,	Circuit integrat	74LS00	K555 LA3	2
16	ic 8, ic 53	Circuit integrat	74LS125	K555 LP8	2
15	ic 34, ic 37, ic 38	Circuit integrat	74LS138	K555 ID7	3
14	ic 23, ic 31	Circuit integrat	74LS153	K555 KP2	2
13	ic 28	Circuit integrat 74LS258	/74LS158	K555 KP14	1
12	ic 16, ic 27	Circuit integrat	74LS164	K555 IR8	2
11	ic 57, ic 58, ic 51	Circuit integrat	74LS166	K555 IR10	3
10	ic 40, ic 48, ic 49, ic 54	Circuit integrat	74LS174	K555 TM9	4
9	ic 25	Circuit integrat	74LS175	K555 TM8	1
8	ic 3, ic 7, ic 43, ic 44	Circuit integrat	74LS244	K555 AP5	4
7	ic 1, ic 5	Circuit integrat	74LS245	K555 AP6	2
6	ic 60÷ic 75	Circuit integrat	MK 4516	K565 RU6	16
5	ic 42, ic 52, ic 59	Circuit integrat	74LS273		3
4	ic 2, ic 4, ic 6, ic 12, ic 21, ic 29	Circuit integrat	74LS374	K555 IR23	6
3	ic 33	Circuit integrat	2716	K573 RF2	1
2	ic 13	Circuit integrat	6845		1
1		Circuit imprimat	703.910.061	Rev. A	1

Poz	Simbol	Denumirea	Cod	Observatii	Cant
56	C56, C57, C7	Condensator 100p 10% 50V	MC 3202		3
55	IC 18	Circuit integrat	74S74	K531 TM2P	1
54	IC 45	Circuit integrat	74S51	K531 LR11P	1
53	IC 41, IC 47	Circuit integrat	74S32	K531 LL1P	2
52		Nit	342.400.303		2
51		Șurub M3×8	304.110.308		2
50		Șaibă plată ϕ3	332 110 030		2
49		Ureche cu filet	400 057		2
48		Șaibă izolatoare	211010xx		4
47		Piuliță hexagonală M3	316 110 030		4
46		Șurub M3×6	304 110 306		2
45		Circuit imprimat conector R.C.A.	703.910.244 rev.0		1
44		Conector R.C.A. mamă	200860		1
43		Conector rack 9 ct. m	200854		1
42		Suport conectori tip 2	703.110.009		1
41	RGB, LPEN	Conector tată 6 contacte	201189		2
40	C58 – C59	Condensator 33µ/16V/10%	CTSP 55		2
39	IC 33	Soclu C.I 24 pini	77914019		1
38	IC 13	Soclu C.I 40 pini	77914021		1

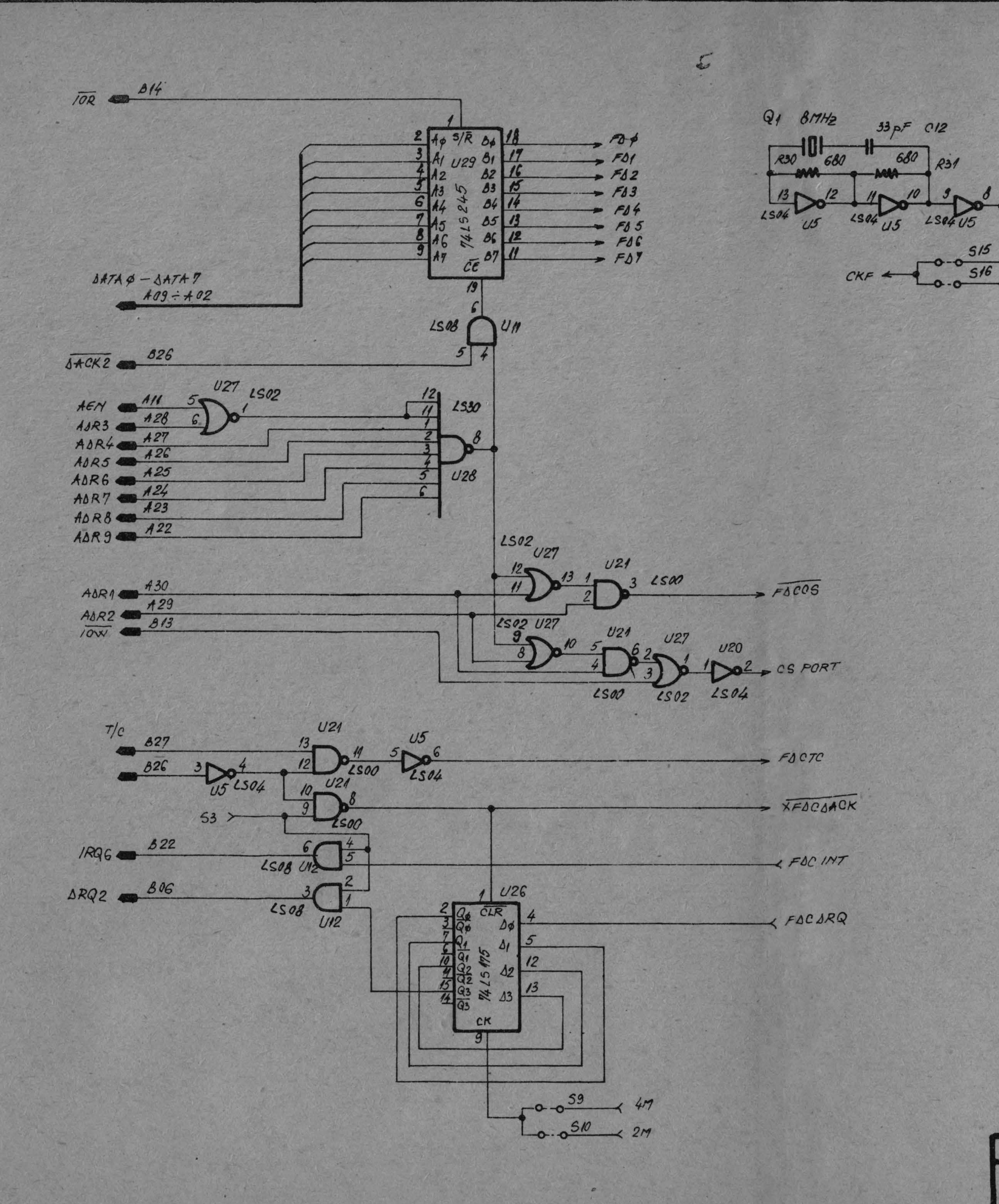
Produs: JUNIOR - XT			Cod: 703
IEPER	Rev.	703 910 060	Data: 1.07. 88
APTG.	0.A	COLOR GRAPHICS ADAPTOR	Fila: 2/2



Produs: JUNIOR-XT			Cod:703
IEPER	Rev.	703 910 030	Data: 2.XI.1988
APTG	B	FLOPPY DISK ADAPTER	Fila: 1/3



Produs: JUNIOR-XT			Cod: 703
IEPER	Rev.	703 910 030	Data: 2.XI.1988
APTG	B	FLOPPY DISK ADAPTER	Fila: 2/3



1. DRIVE TYPE

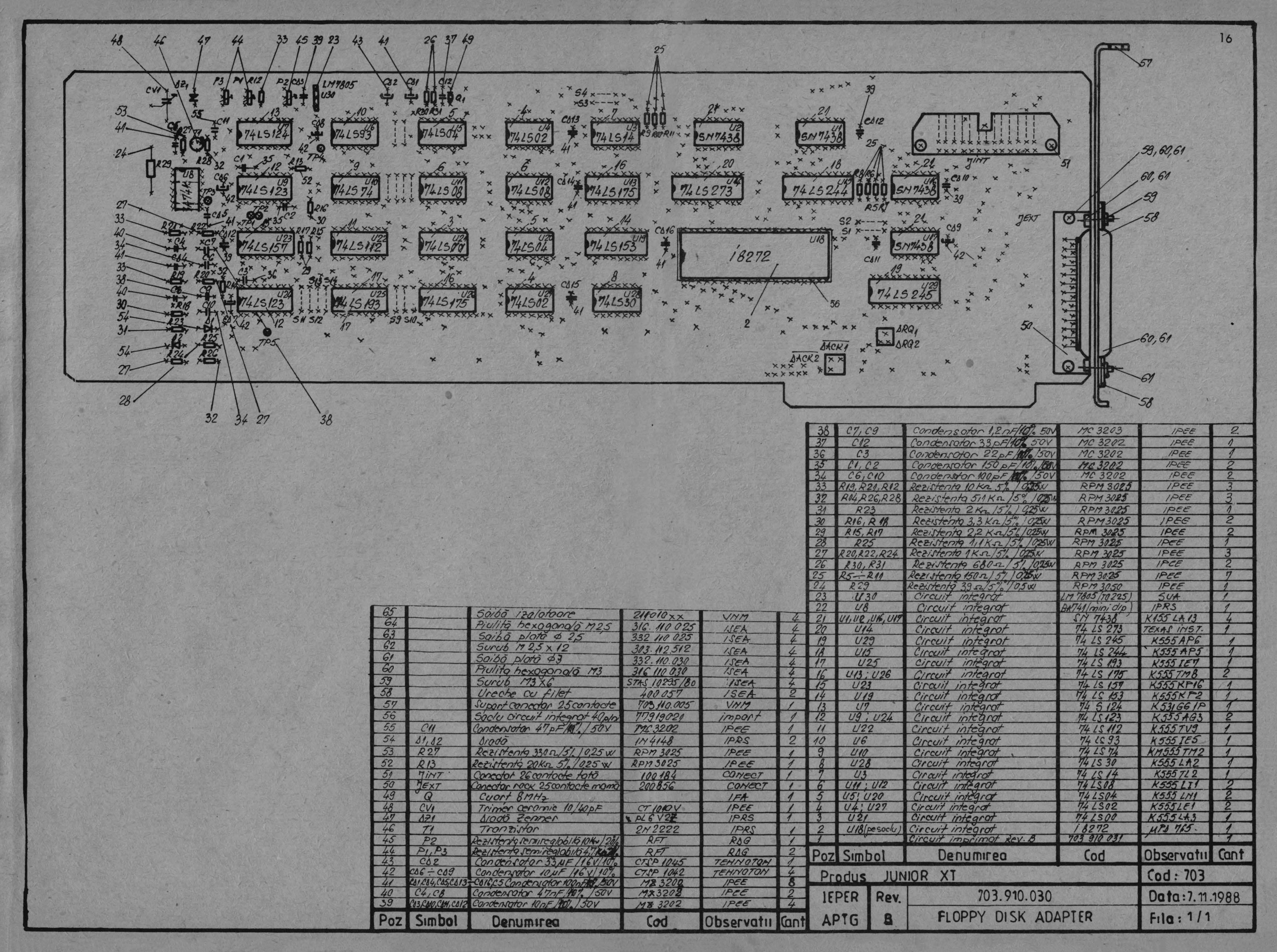
a/ SINGLE SIDED	DOUBLE SIDED
S1 – OFF S2 – ON	S1 – ON S2 – OFF

b/ 5.25 inch	8 inch
S5 – OFF S6 – ON	S5 – ON S6 – OFF
S7 – ON S8 – OFF	S7 – OFF S8 – ON
S9 – OFF S10 – ON	S9 – ON S10 – OFF
S11 – OFF S12 – ON	S11 – ON S12 – OFF
S13 – ON S14 – OFF	S13 – OFF S14 – ON
S15 – ON S16 – OFF	S15 – OFF S16 – ON

2. READY SIGNAL

DON'T CARE	FROM DRIVE
S3 – ON S4 – OFF	S3 – OFF S4 – ON

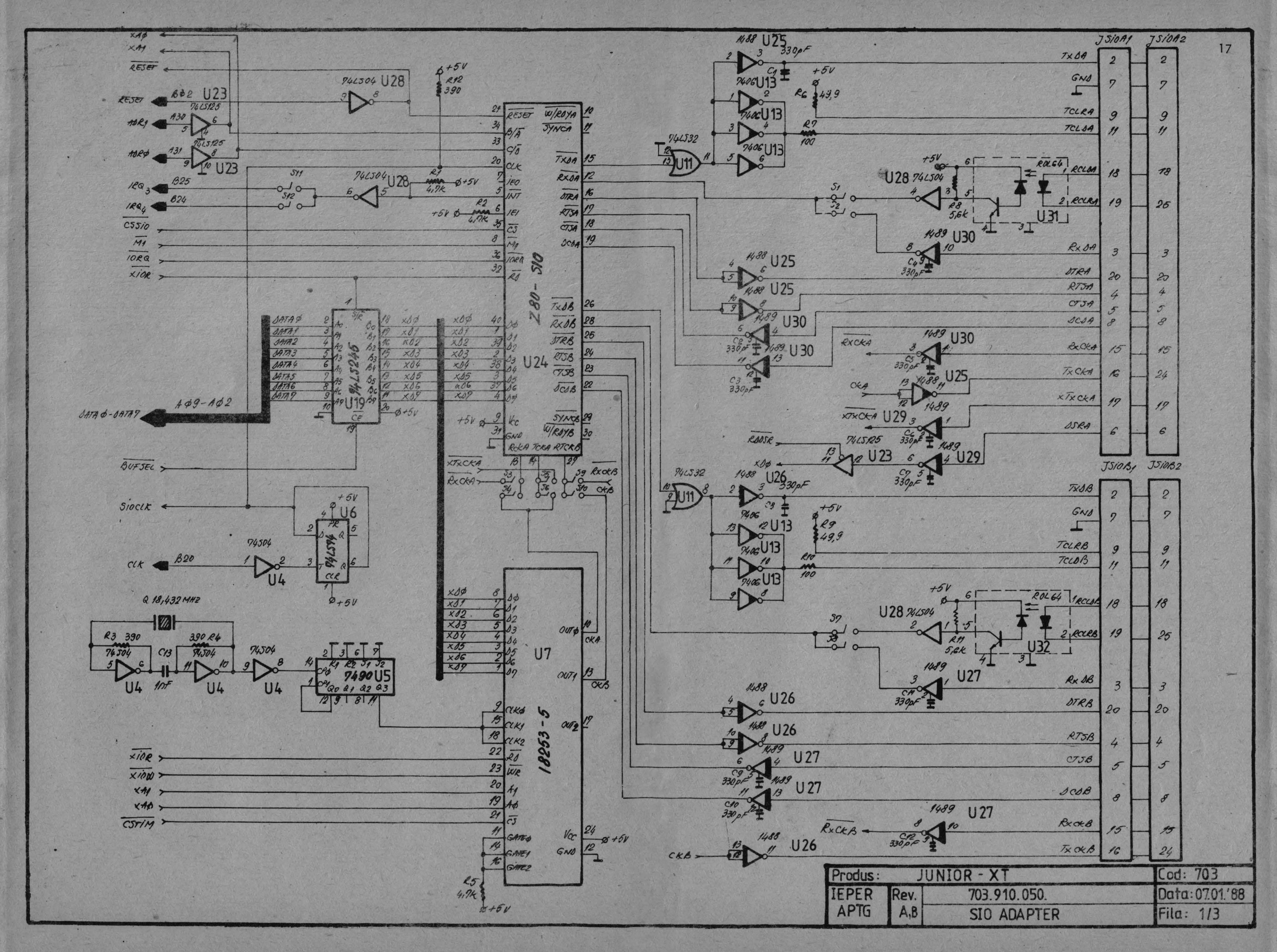
Produs: JUNIOR-XT			Cod: 703
IEPER	Rev.	703 910 030	Data: 2. XI. 1988
APTG	B	FLOPPY DISK ADAPTER	Fila: 3/3

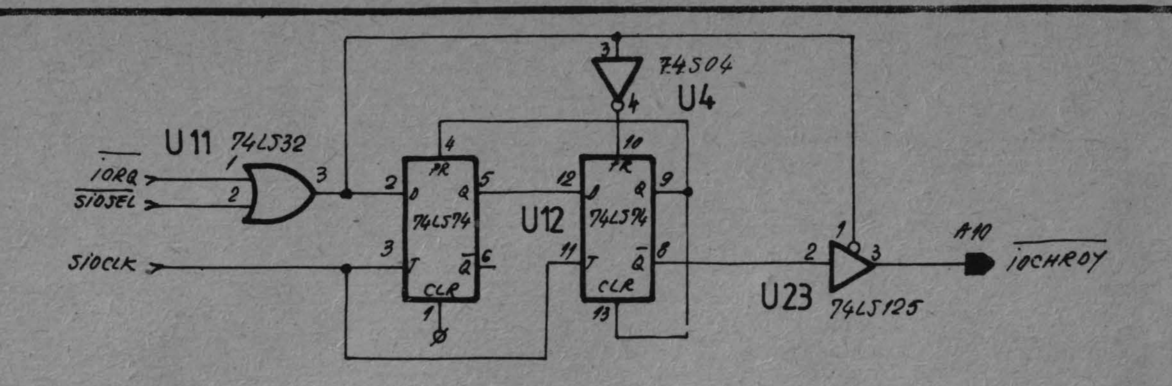


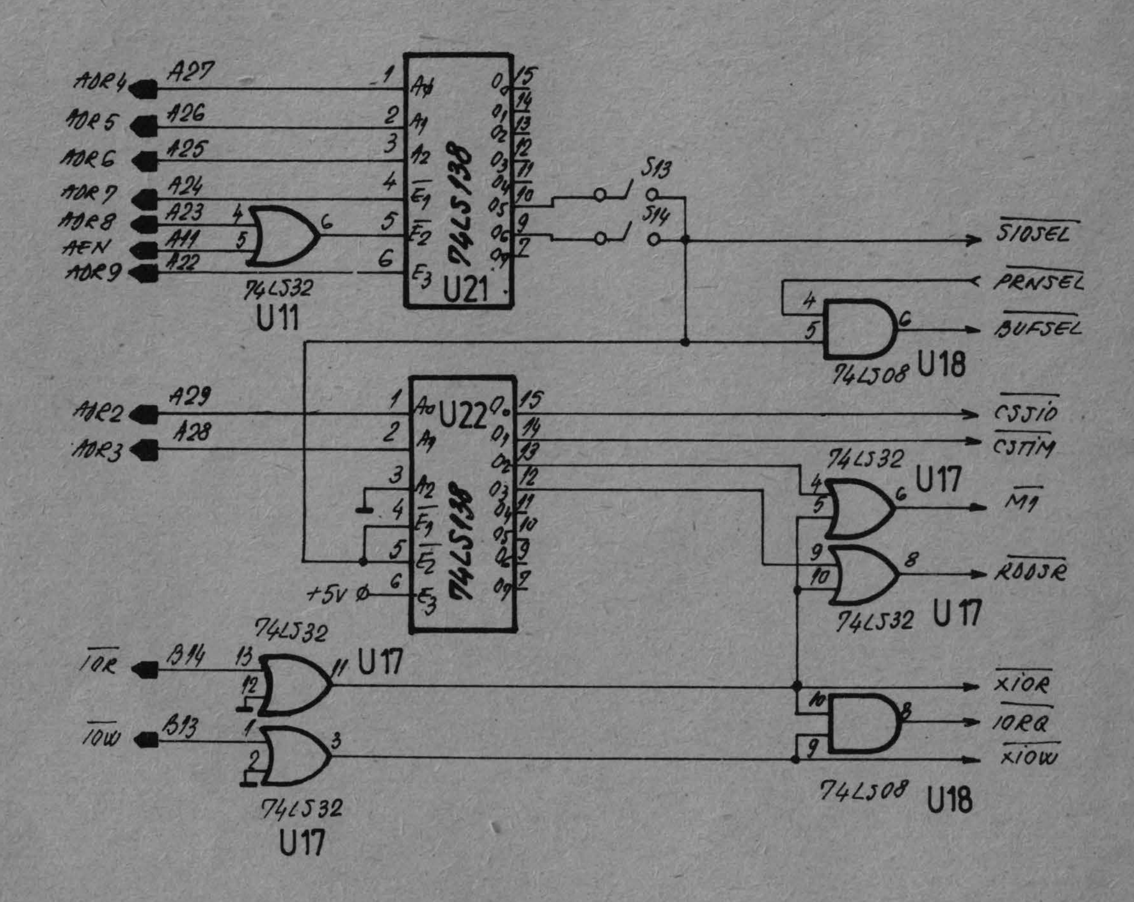
Poz	Simbol	Denumirea	Cod	Observatii	Cant
38	C7, C9	Condensator 1,2 nF/10%/50V	MC 3203	IPEE	2
37	C12	Condensator 33 pF/10%/50V	MC 3202	IPEE	1
36	C3	Condensator 22 pF/10%/50V	MC 3202	IPEE	1
35	C1, C2	Condensator 150 pF/10%/50V	MC 3202	IPEE	2
34	C6, C10	Condensator 100 pF/10%/50V	MC 3202	IPEE	2
33	R19, R21, R12	Rezistenta 10 KΩ 5%/0,25W	RPM 3025	IPEE	3
32	R04, R26, R28	Rezistenta 5,1 KΩ/5%/0,25W	RPM 3025	IPEE	3
31	R23	Rezistenta 2 KΩ/5%/0,25W	RPM 3025	IPEE	1
30	R16, R18	Rezistenta 3,3 KΩ/5%/0,25W	RPM 3025	IPEE	2
29	R15, R17	Rezistenta 2,2 KΩ/5%/0,25W	RPM 3025	IPEE	2
28	R25	Rezistenta 1,1 KΩ/5%/0,25W	RPM 3025	IPEE	1
27	R20, R22, R24	Rezistenta 1 KΩ/5%/0,25W	RPM 3025	IPEE	3
26	R30, R31	Rezistenta 680 Ω/5%/0,25W	RPM 3025	IPEE	2
25	R5 ÷ R11	Rezistenta 150 Ω/5%/0,25W	RPM 3025	IPEE	7
24	R29	Rezistenta 39 Ω/5%/0,5W	RPM 3050	IPEE	1
23	U30	Circuit integrat	LM 7805 (TO 225)	SUA	1
22	U8	Circuit integrat	BA741 (mini dip)	IPRS	1
21	U1, U2, U16, U17	Circuit integrat	SN 7438	K155 LA13	4
20	U14	Circuit integrat	74 LS 273	TEXAS INST.	1
19	U29	Circuit integrat	74 LS 245	K555 AP6	1
18	U15	Circuit integrat	74 LS 244	K555 AP5	1
17	U25	Circuit integrat	74 LS 193	K555 IE7	1
16	U13; U26	Circuit integrat	74 LS 175	K555 TM8	2
15	U23	Circuit integrat	74 LS 157	K555 KP16	1
14	U19	Circuit integrat	74 LS 153	K555 KP2	1
13	U7	Circuit integrat	74 S 124	K531 GG1P	1
12	U9; U24	Circuit integrat	74 LS 123	K555 AG3	2
11	U22	Circuit integrat	74 LS 112	K555 TV9	1
10	U6	Circuit integrat	74 LS 93	K555 IE5	1
9	U10	Circuit integrat	74 LS 74	KM555 TM2	1
8	U28	Circuit integrat	74 LS 30	K555 LA2	1
7	U3	Circuit integrat	74 LS 14	K555 TL2	1
6	U11; U12	Circuit integrat	74 LS 08	K555 LI1	2
5	U5; U20	Circuit integrat	74 LS 04	K555 LN1	2
4	U4; U27	Circuit integrat	74 LS 02	K555 LE1	2
3	U21	Circuit integrat	74 LS 00	K555 LA3	1
2	U18 (pe soclu)	Circuit integrat	i 8272	μPD 765	1
1		Circuit imprimat Rev. B	703 910 031		1

Poz	Simbol	Denumirea	Cod	Observatii	Cant
65		Saibă izolatoare	211010xx	VNM	4
64		Piuliţă hexagonală M2,5	316.110 025	ISEA	4
63		Saibă plată ϕ 2,5	332 110 025	ISEA	4
62		Surub M 2,5 x 12	303.112.512	ISEA	4
61		Saibă plată ϕ3	332.110.030	ISEA	4
60		Piuliţă hexagonală M3	316 110 030	ISEA	4
59		Surub M3 x 6	STAS 10295/80	ISEA	4
58		Ureche cu filet	400 057	ISEA	2
57		Suport conector 25 contacte	703.110.005	VNM	1
56		Soclu circuit integrat 40 pini	77919021	import	1
55	C11	Condensator 47 pF/10%/50V	MC 3202	IPEE	1
54	D1, D2	Diodă	1N 4148	IPRS	2
53	R27	Rezistenta 330 Ω/5%/0,25 W	RPM 3025	IPEE	1
52	R13	Rezistentă 20 KΩ 5%/0,25 W	RPM 3025	IPEE	1
51	J INT	Conector 26 contacte tată	100 184	CONECT	1
50	J EXT	Conector rack 25 contacte mamă	200 856	CONECT	1
49	Q	Cuarţ 8 MHz		IFA	1
48	CV1	Trimer ceramic 10/40 pF	CT 1010 V	IPEE	1
47	DZ1	Diodă Zenner	PL 6V2Z	IPRS	1
46	T1	Tranzistor	2N 2222	IPRS	1
45	P2	Rezistentă semireglabilă 10 KΩ/20%	RFT	RDG	1
44	P1, P3	Rezistentă semireglabilă 4,7 KΩ/20%	RFT	RDG	2
43	CD2	Condensator 33 μF/16V/10%	CTSP 1045	TEHNOTON	1
42	CD6 ÷ CD9	Condensator 10 μF/16V/10%	CTSP 1042	TEHNOTON	4
41	CD1, CD4, CD5, CD13 ÷ CD16, C5	Condensator 100 nF/10%/50V	MZ 3202	IPEE	8
40	C4, C8	Condensator 47 nF/10%/50V	MZ 3202	IPEE	2
39	CD3, CD10, CD11, CD12	Condensator 10 nF/10%/50V	MZ 3202	IPEE	4

Produs JUNIOR XT			Cod: 703
IEPER APTG	Rev. B	703.910.030	Data: 7.11.1988
		FLOPPY DISK ADAPTER	Fila: 1/1


Produs: JUNIOR - XT
Cod: 703
IEPER APTG
Rev. A,B
703.910.050.
Data: 07.01.'88
SIO ADAPTER
Fila: 1/3
Z80 - SIO
U24
18253 - 5
U7
74LS245
U19
7490 U5
74LS74
U6
Q 18,432 MHZ
JSIOA1
JSIOA2
JSIOB1
JSIOB2
ROL64
U31
U32
DATA Ø - DATA 7
AØ9 - AØ2
SIOCLK
BUFSEL
CLK
RESET
IRQ3
IRQ4
CSSIO
CSTIM
TxDA
GND
TCLRA
TCLDA
RCLRA
RxDA
DTRA
RTSA
CTSA
DCDA
RxCKA
TxCKA
xTxCKA
DSRA
RADSR
TxDB
TCLRB
TCLDB
RxDB
DTRB
RTSB
CTSB
DCDB
RxCkB
TxCkB
CKB





STRAP 11 – 14 CONFIGURATION (SIO ADAPTER ADDRESS):

ADDRESS	S11	S12	S13	S14
250 – 25F	OFF	ON	ON	OFF
260 – 26F	ON	OFF	OFF	ON

STRAP S1 – S2 CONFIGURATION (SIOA INTERFACE TYPE):

INTERFACE TYPE	S1	S2
CCITT – V24	OFF	ON
CURRENT LOOP.	ON	OFF

STRAP S7 – S8 CONFIGURATION (SIOB INTERFACE TYPE):

INTERFACE TYPE	S7	S8
CCITT – V24	OFF	ON
CURRENT LOOP	ON	OFF

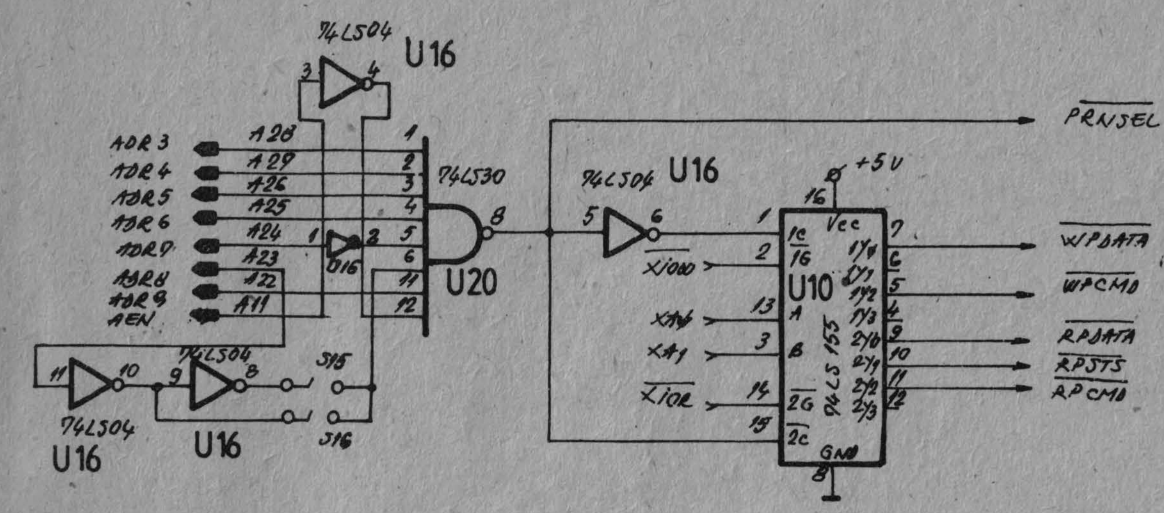
STRAP S3 – S6 CONFIGURATION (SIOA ASYNC/SYNC MODE):

MODE	S3	S4	S5	S6
ASYNC	OFF	ON	OFF	ON
SYNC	ON	OFF	ON	OFF

STRAP S9 – S10 CONFIGURATION (SIOB ASYNC/SYNC MODE):

MODE	S9	S10
ASYNC	OFF	ON
SYNC	ON	OFF

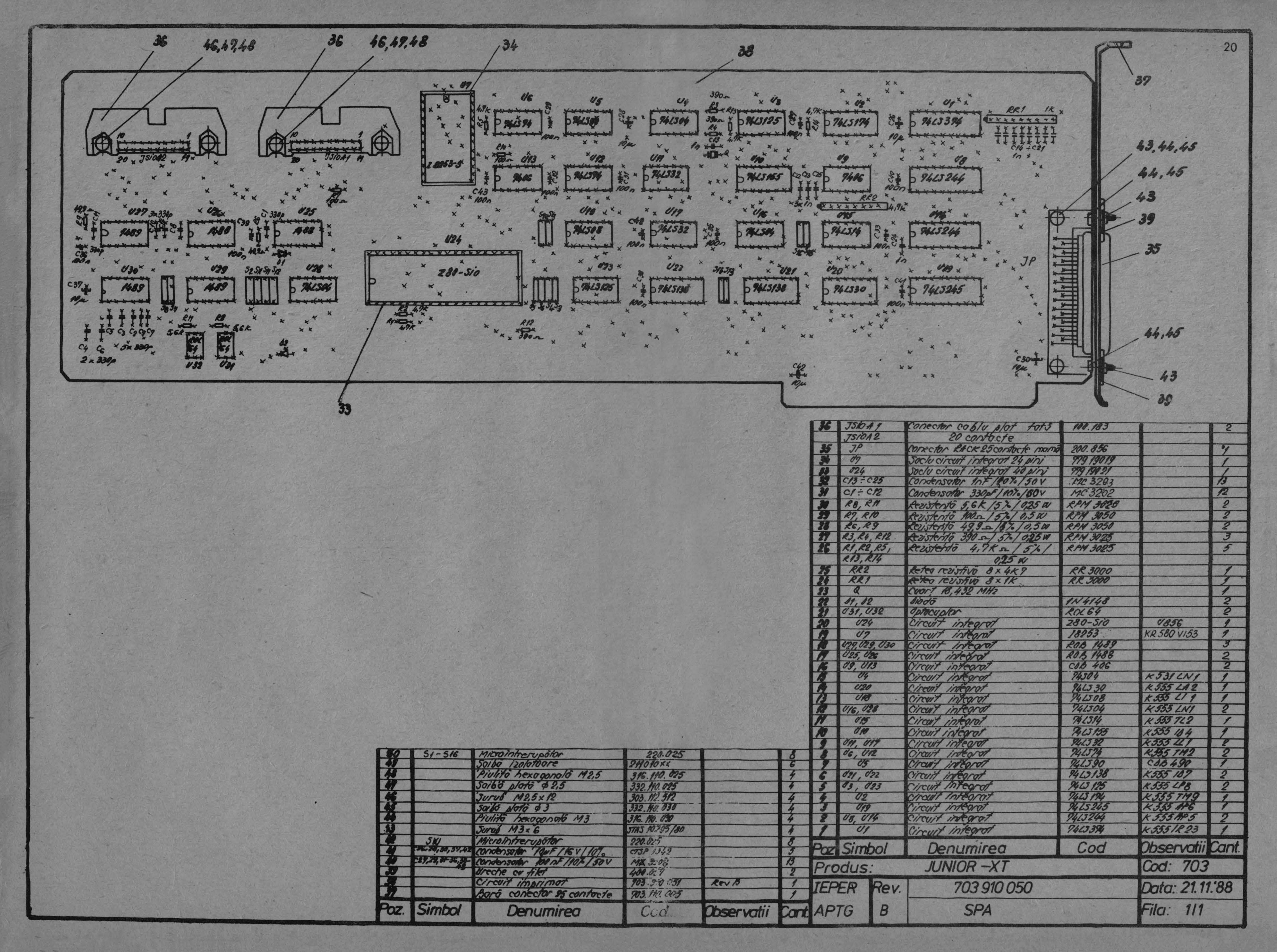
Produs:		JUNIOR - XT	Cod: 703
IEPER	Rev.	703.910.050.	Data: 07.01.'88
APTG	A,B	SIO ADAPTER	Fila: 2/3



STRAP S15-S16 CONFIGURATION (PRINTER ADAPTER ADDRESS):

ADDRESS	S15	S16
278	OFF	ON
378	ON	OFF

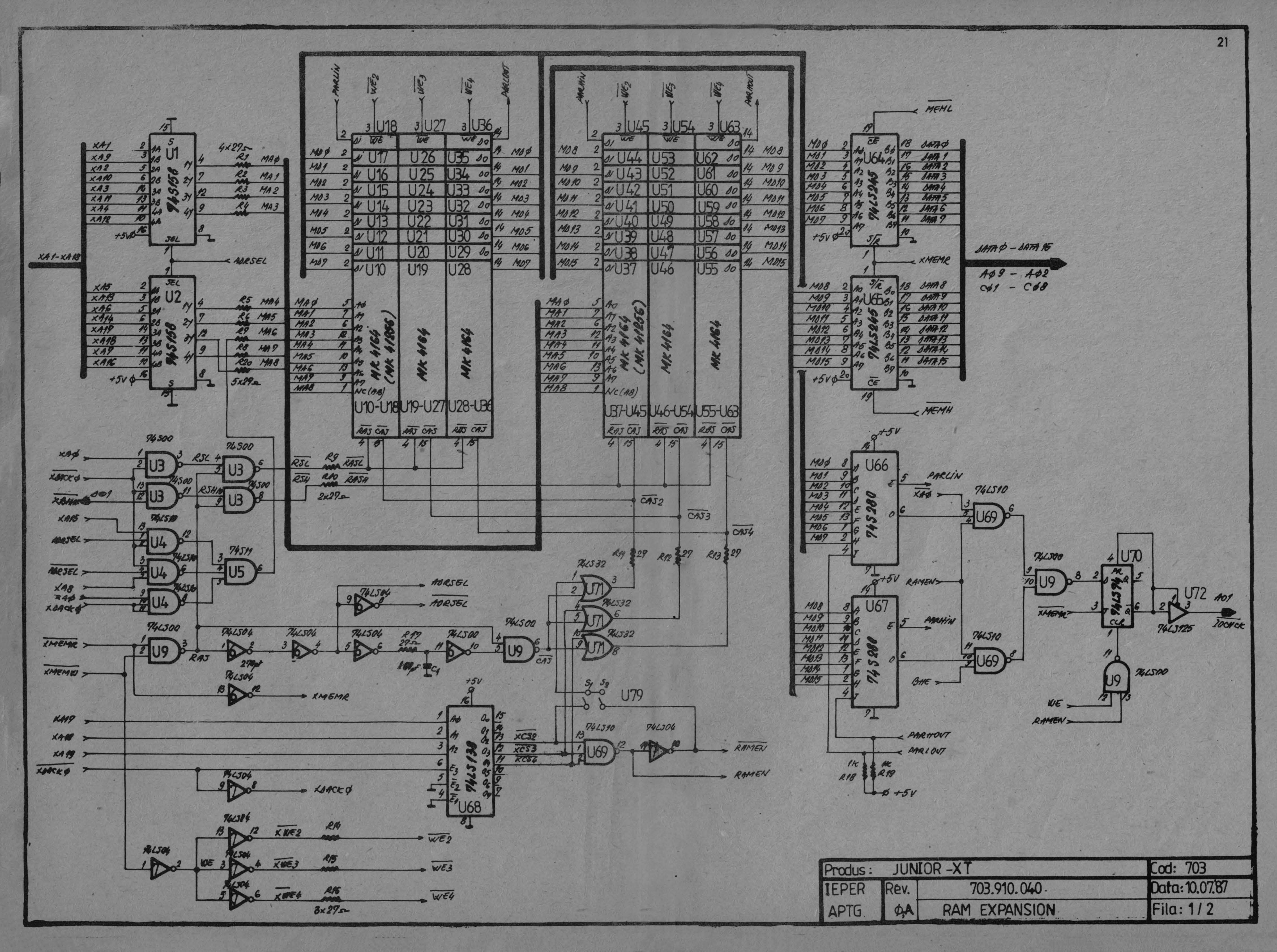
Produs: JUNIOR / XT			Cod: 703
IEPER	Rev.	703.910.050	Data: 07.01.88
APTG	A,B	PRINTER ADAPTER	Fila: 3/3

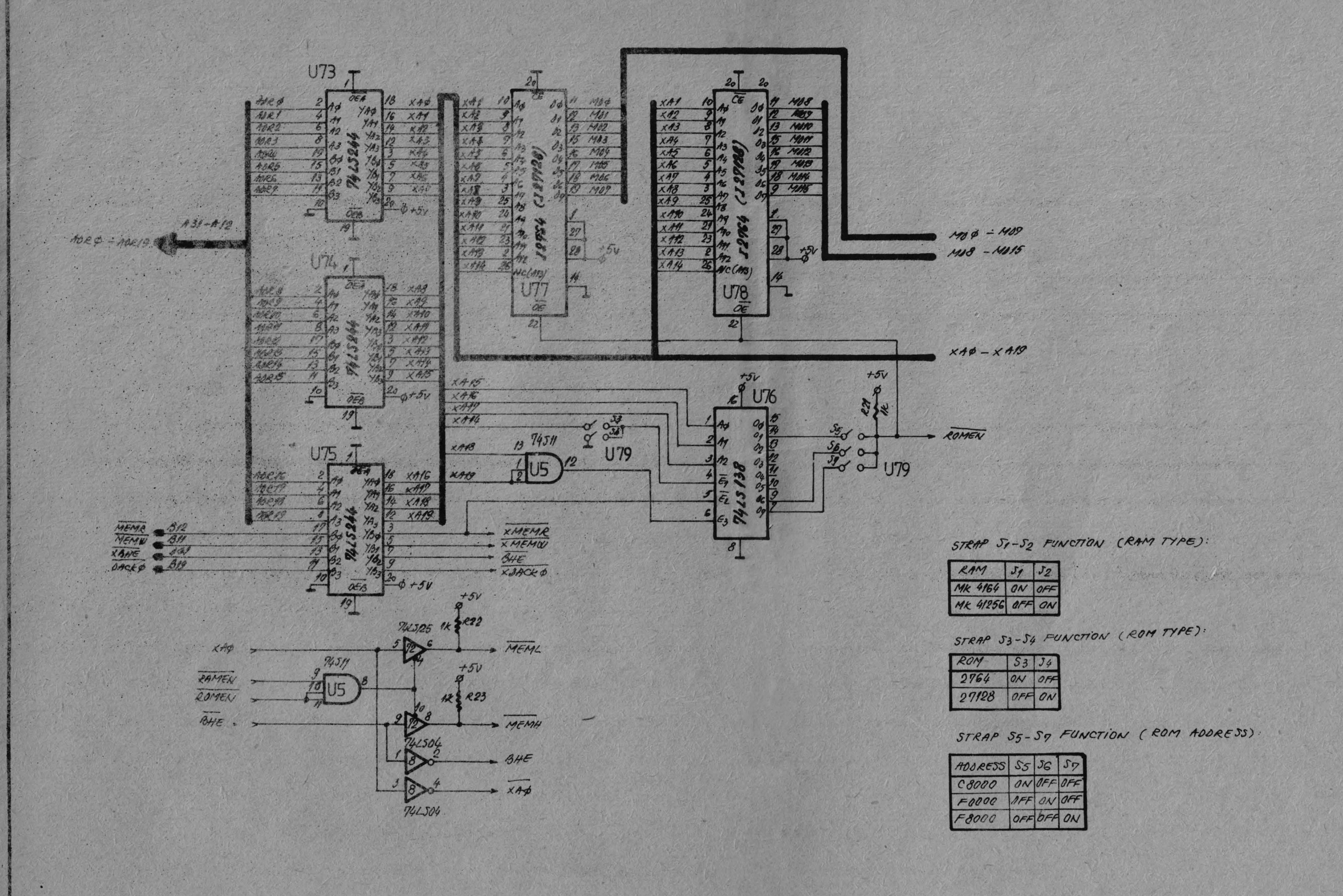


Poz.	Simbol	Denumirea	Cod	Observatii	Cant.
50	S1-S16	Microintrerupător	220.025		8
49		Şaibă izolatoare	2110010xx		6
48		Piuliţă hexagonală M2,5	316.110.025		4
47		Şaibă plată ф2,5	332.110.025		4
46		Şurub M2,5×12	303.112.512		4
45		Şaibă plată ф3	332.110.030		4
44		Piuliţă hexagonală M3	316.110.030		4
43		Şurub M3×6	STAS 10295/80		4
42	SW	Microintrerupător	220.025		8
41	C36-C38,C30,C37,C42	Condensator 10µF/16V/10%	CTSP 1342		5
40	C27,C28,C31-C35,C39-C43	Condensator 100nF/10%/50V	MK 3208		13
39		Ureche cu filet	400.057		2
38		Circuit imprimat	703.910.051	Rev B	1
37		Bară conector 25 contacte	703.110.005		1

Poz	Simbol	Denumirea	Cod	Observatii	Cant.
36	JS10A1 JS10A2	Conector cablu plat tată 20 contacte	100.183		2
35	JP	Conector RACK 25 contacte mamă	200.856		1
34	U7	Soclu circuit integrat 24 pini	979 19019		1
33	U24	Soclu circuit integrat 40 pini	979 19021		1
32	C13÷C25	Condensator 1nF/20%/50V	MC 3203		13
31	C1÷C12	Condensator 330pF/10%/50V	MC 3202		12
30	R8, R11	Rezistenţă 5,6K/5%/0,25W	RPM 3028		2
29	R7, R10	Rezistenţă 100Ω/5%/0,5W	RPM 3050		2
28	R6, R9	Rezistenţă 49,9Ω/1%/0,5W	RPM 3050		2
27	R3, R4, R12	Rezistenţă 390Ω/5%/0,25W	RPM 3025		3
26	R1, R2, R5, R13, R14	Rezistenţă 4,7KΩ/5%/ 0,25W	RPM 3025		5
25	RR2	Reţea rezistivă 8×4K7	RR 3000		1
24	RR1	Reţea rezistivă 8×1K	RR 3000		1
23	Q	Cuarţ 18,432 MHz			1
22	D1, D2	Diodă	1N4148		2
21	U31, U32	Optocuplor	ROL 64		2
20	U24	Circuit integrat	Z80-SIO	U856	1
19	U7	Circuit integrat	I8253	KR580VI53	1
18	U27, U29, U30	Circuit integrat	ROB 1489		3
17	U25, U26	Circuit integrat	ROB 1488		2
16	U9, U13	Circuit integrat	CDB 406		2
15	U4	Circuit integrat	74S04	K531LN1	1
14	U20	Circuit integrat	74LS30	K555LA2	1
13	U18	Circuit integrat	74LS08	K555LI1	1
12	U16, U28	Circuit integrat	74LS04	K555LN1	2
11	U15	Circuit integrat	74LS14	K555TL2	1
10	U10	Circuit integrat	74LS155	K555ID4	1
9	U11, U17	Circuit integrat	74LS32	K555LL1	2
8	U6, U12	Circuit integrat	74LS74	K555TM2	2
7	U5	Circuit integrat	74LS90	CDB490	1
6	U21, U22	Circuit integrat	74LS138	K555ID7	2
5	U3, U23	Circuit integrat	74LS125	K555LP8	2
4	U2	Circuit integrat	74LS174	K555TM9	1
3	U19	Circuit integrat	74LS245	K555AP6	1
2	U8, U14	Circuit integrat	74LS244	K555AP5	2
1	U1	Circuit integrat	74LS394	K555IR23	1

Produs:	JUNIOR-XT		Cod: 703
IEPER	Rev.	703 910 050	Data: 21.11.'88
APTG	B	SPA	Fila: 1/1


74S158
U1
U2
74S00
74S10
74S11
74LS04
74LS32
74LS10
74LS138
74S280
74LS245
74LS74
74LS125
MK 4164 (MK 41256)
MK 4164
U10-U18
U19-U27
U28-U36
U37-U45
U46-U54
U55-U63
U64
U65
U66
U67
U68
U69
U70
U71
U72
U79
XA1-XA18
DATA Φ - DATA 15
AΦ9 - AΦ2
CΦ1 - CΦ8
ADRSEL
PARLIN
PARHIN
PARLOUT
PARHOUT
MEML
MEMH
XMEMR
XMEMW
RAMEN
BHE
XBACKΦ
IOCHCK
WE2
WE3
WE4
CAS2
CAS3
CAS4
4x27Ω
5x27Ω
2x27Ω
3x27Ω
+5V
Produs: JUNIOR -XT
Cod: 703
IEPER
Rev.
703.910.040
Data: 10.07.87
APTG
ΦA
RAM EXPANSION
Fila: 1/2



STRAP S_1-S_2 FUNCTION (RAM TYPE):

RAM	S1	S2
MK 4164	ON	OFF
MK 41256	OFF	ON

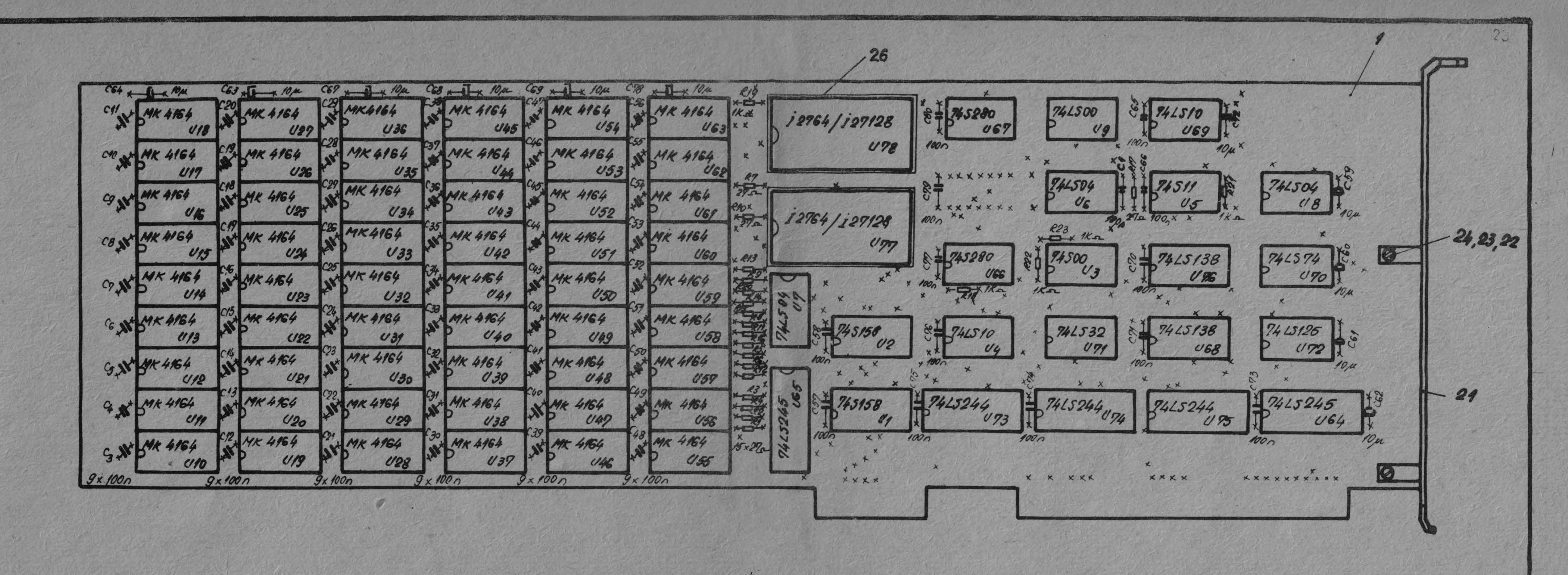
STRAP S_3-S_4 FUNCTION (ROM TYPE):

ROM	S3	S4
2764	ON	OFF
27128	OFF	ON

STRAP S_5-S_7 FUNCTION (ROM ADDRESS):

ADDRESS	S5	S6	S7
C8000	ON	OFF	OFF
F0000	OFF	ON	OFF
F8000	OFF	OFF	ON

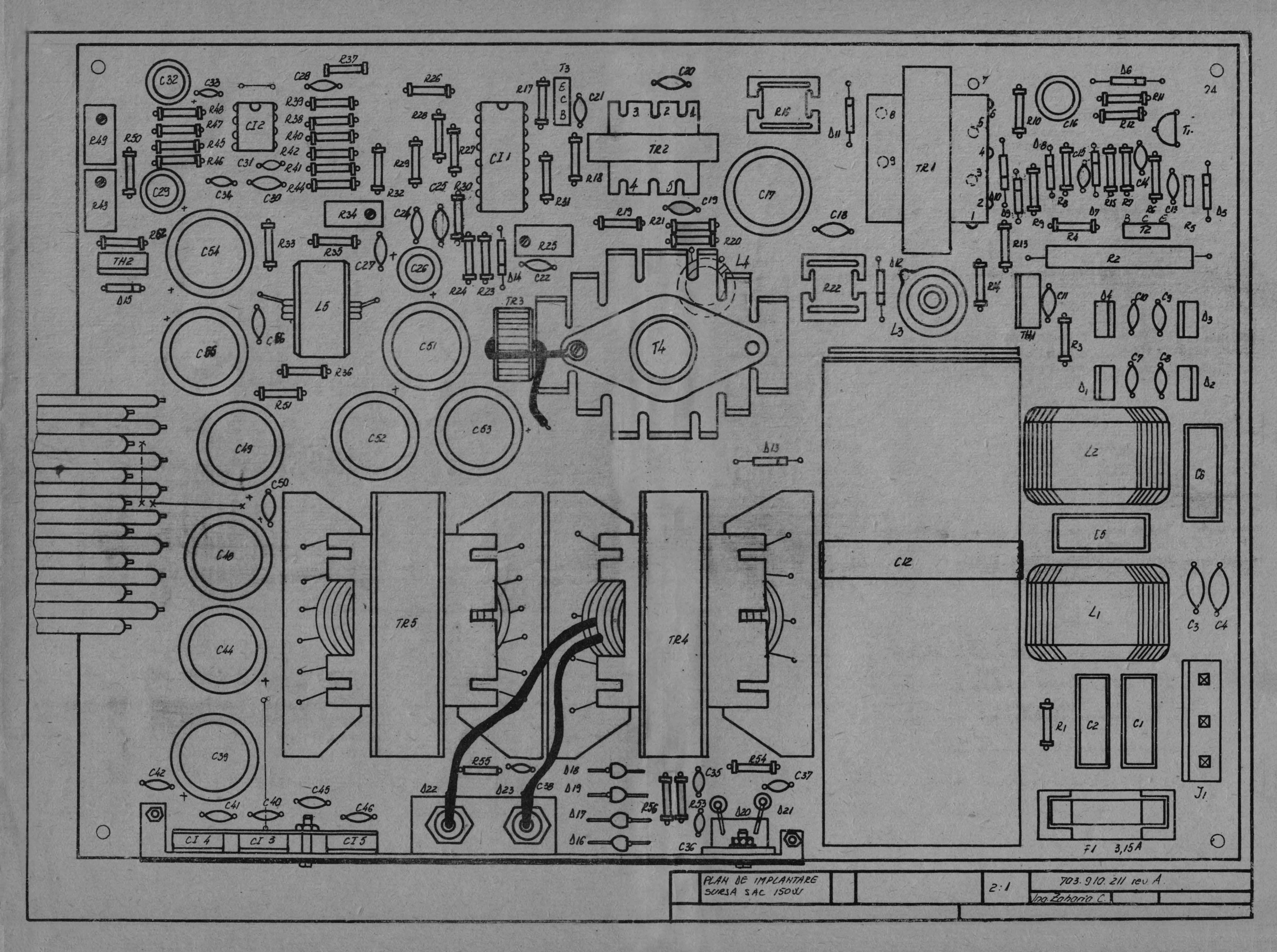
Produs:	JUNIOR - XT		Cod: 703
IEPER	Rev.	703.910.040	Data: 10.07.'87
APTG	φiA	RAM EXPANSION	Fila: 2/2



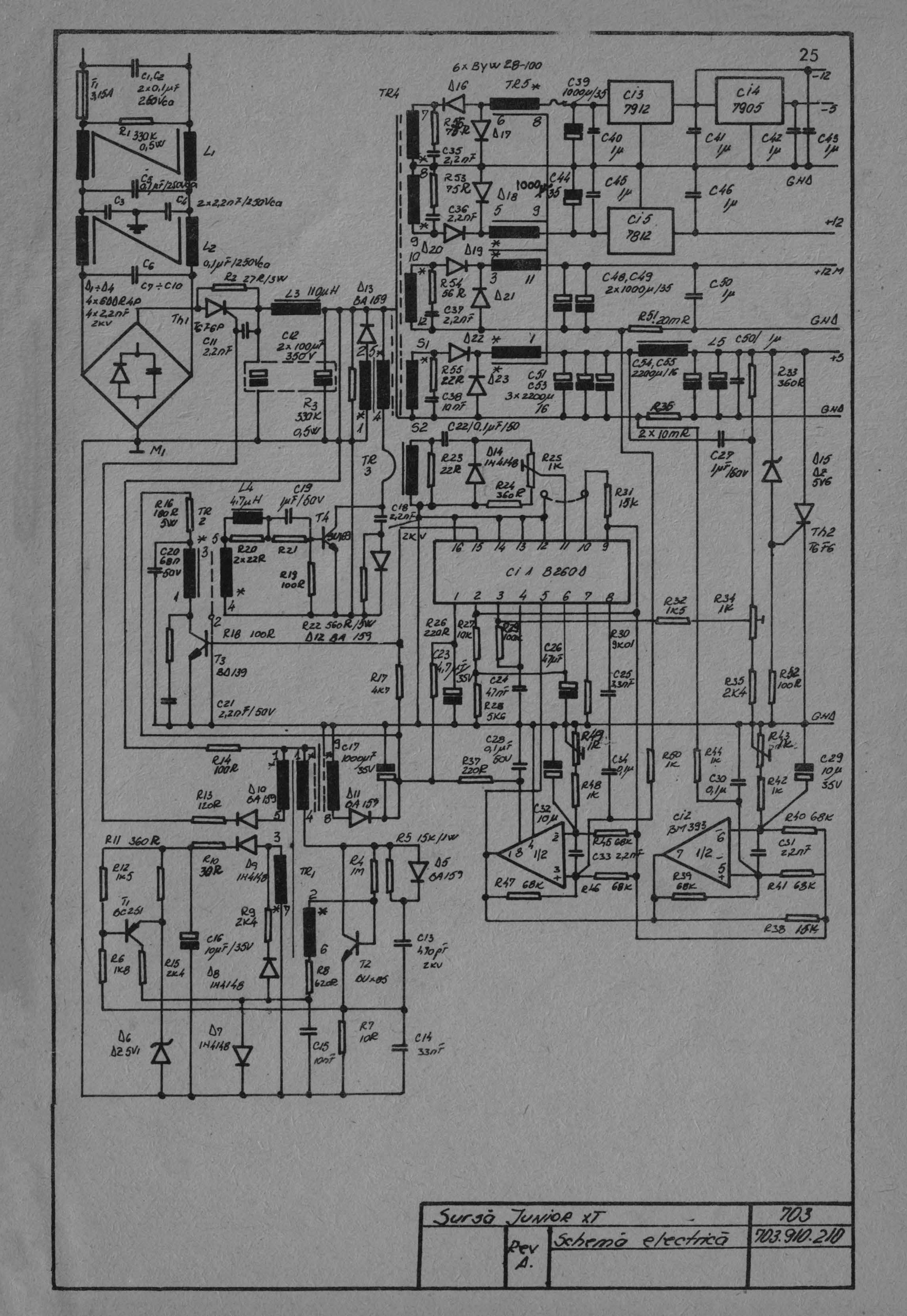
NOTĂ: Circuitele integrate și soclurile de la pozițiile U76, U77, U78 nu se plantează decît pentru extensie de ROM

Poz	Simbol	Denumirea	Cod	Observatii	Cant.
26	U77, U78	Soclu circuit integrat 28 pini	77919020		2
25	U77, U78	Circuit integrat	i2764/i27128		2
24		Piuliță M3	316.110.030		2
23		Șaibă Ø3	332.110.030		4
22		Șurub M3x6	STAS 10295/80		2
21		Bară conector tip 4	703.110.009		1
20	R18, R19 R21 - R23	Rezistență 1kΩ / 5% / 0,25W	RCG 3085		5
19	R1 - R17, R20	Rezistență 27Ω / 5% / 0,25 W	RCG 3085		18
18	C1	Condensator 100pF / 10% / 50 V	PZC 3202		1
17	C63, C64, C67, C68 C69, C70, C72, C59-C62	Condensator 10µF / 10% / 16 V	[illegible]SP 1042		11
16	C3-C58, C65, C66, C70, C71, C73-C77, C79, C80	Condensator 100 nF / 10% / 50 V	MX 3203		67
15	U1, U2	Circuit integrat	74S158 / 74S258	K531KP14P	2
14	U73-U75	Circuit integrat	74LS244	K555AP5	3
13	U64, U65	Circuit integrat	74LS245	K555AP6	2
12	U71	Circuit integrat	74LS32	K555LL1	1
11	U9	Circuit integrat	74LS00	K555LA3	1
10	U5	Circuit integrat	74S11	K531LI3	1
9	U4, U69	Circuit integrat	74LS10	K555LA4	2
8	U3	Circuit integrat	74S00	K531LA3	1
7	U6, U7, U8	Circuit integrat	74LS04	K555LN1	3
6	U70	Circuit integrat	74LS74	K555TM2	1
5	U72	Circuit integrat	74LS125	K555LP8	1
4	U68, U96	Circuit integrat	74LS138	K555ID7	2
3	U66, U67	Circuit integrat	74S280	K531IP5	2
2	U10-U63	Circuit integrat	MK4164	K565RU5G	54
1		Circuit imprimat	703.910.041 Rev A.		1

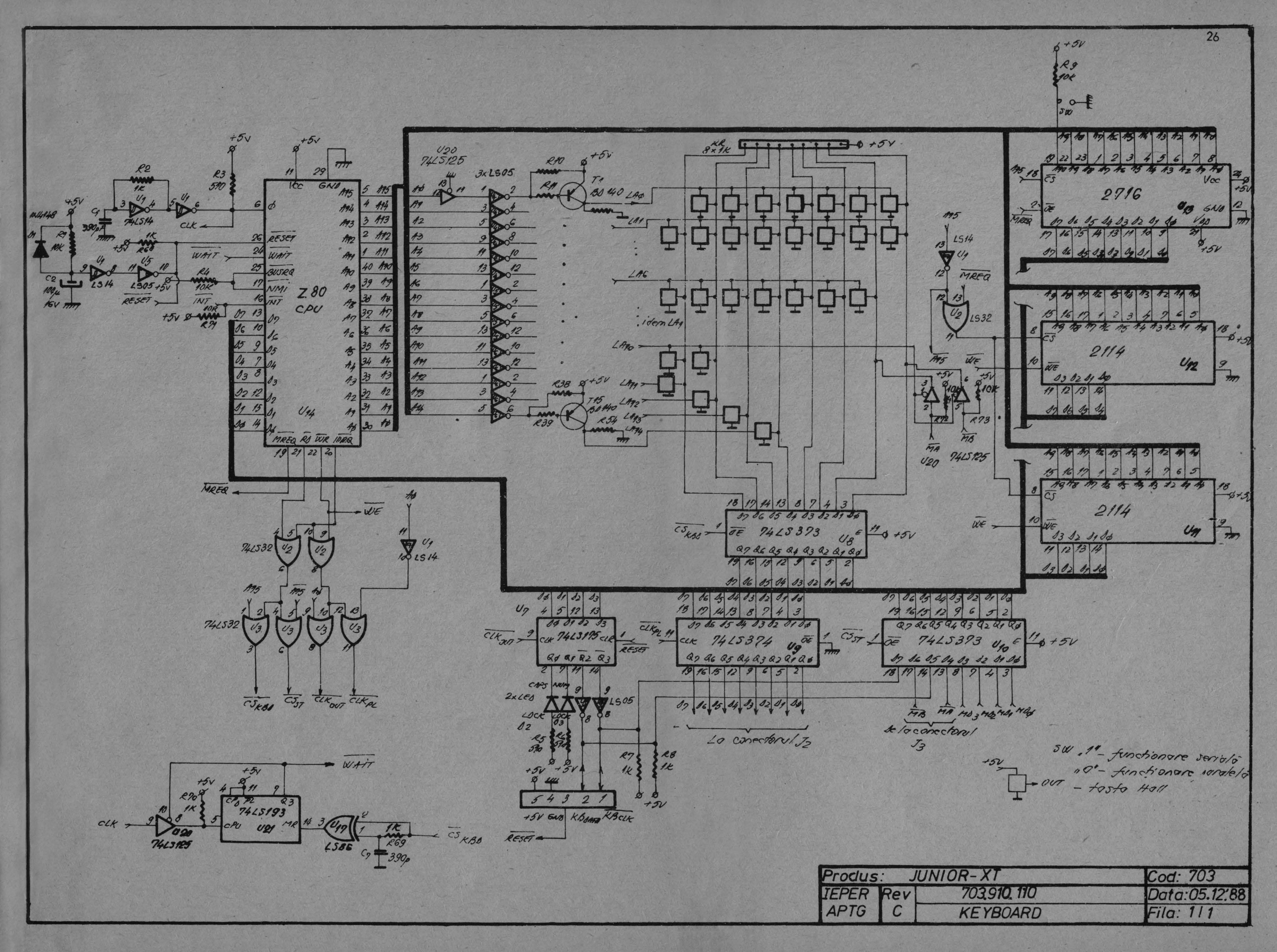
Produs: JUNIOR-XT			Cod: 703
IEPER	Rev.	703 910040	Data 21.11.88
APTG	A	RAM EXPANSION	Fila: 1/1

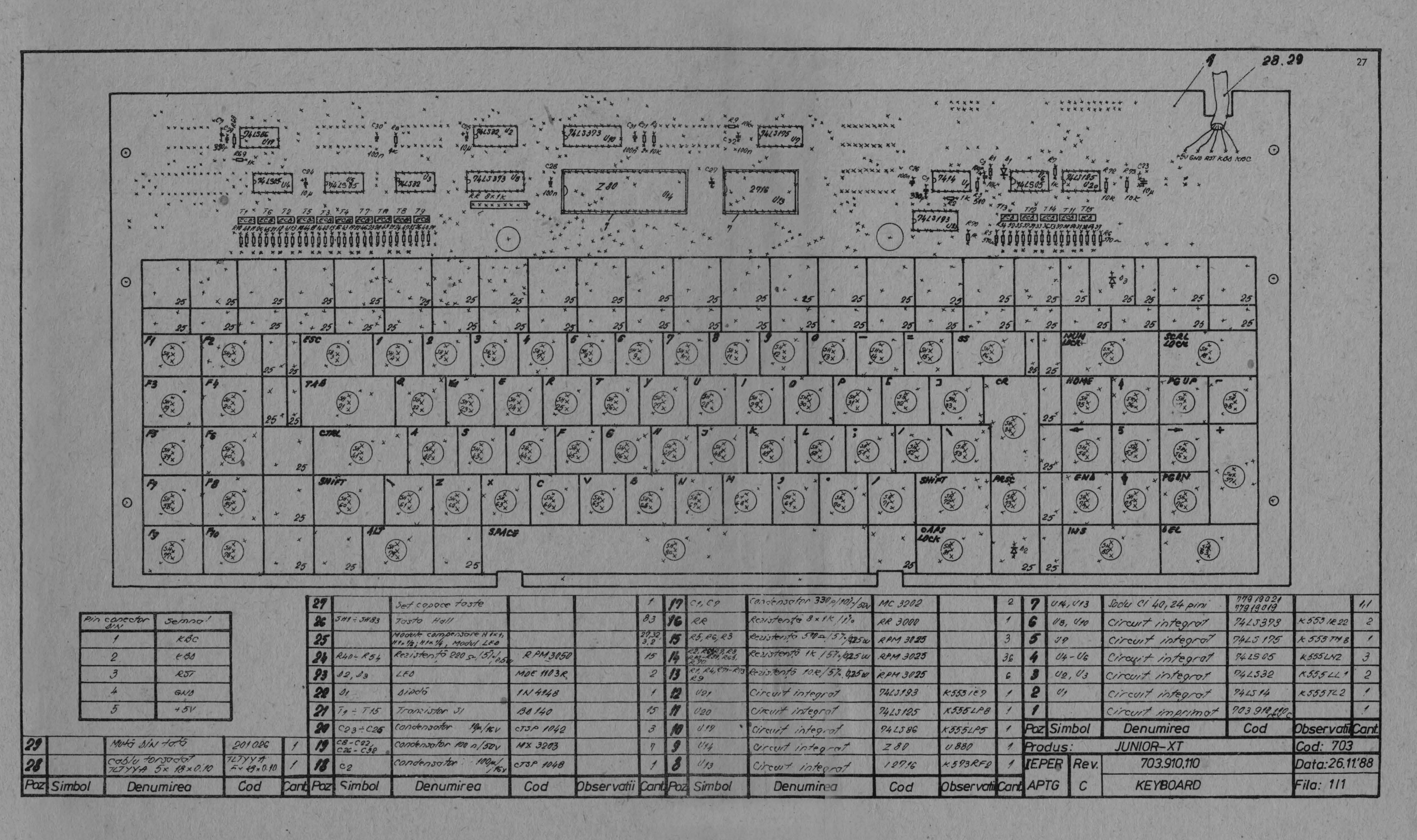


C32
C33
R48
R47
R45
R46
CI2
R37
C28
R39
R38
R40
R42
R41
R44
C31
C34
C30
C29
R49
R43
R50
R26
R28
R29
R32
R27
CI1
R17
T3
E
C
B
C21
R31
R18
TR2
C20
R15
D11
TR1
C16
D6
R11
R12
R10
T1
C17
C19
R19
R21
R20
C18
R34
C25
R30
C24
R25
C54
TH2
R52
R33
R35
C27
C26
R24
R23
D14
C22
TR3
T4
L4
R22
D12
L3
R14
R13
R2
R4
R9
D7
T2
R5
R3
TH1
C11
D4
C10
C9
D3
C7
C8
D1
D2
D15
L5
C56
C55
C51
R36
R51
C49
C52
C53
D13
L2
C6
C5
C12
L1
C3
C4
C50
C48
C44
TR5
TR4
R1
C2
C1
J1
C39
C42
C41
C40
C45
C46
R55
D22
D23
C38
D18
D19
D17
D16
R56
R53
C35
R54
C37
D20
D21
C36
CI 4
CI 3
CI 5
F1 3,15A
PLAN DE IMPLANTARE
SURSA SAC 150W
2:1
703.910.211 rev A.
Ing. Zaharia C.



6 x BYW 28-100
TR4
TR5
C39 1000µ/35
Ci3 7912
Ci4 7905
Ci5 7812
-12
-5
+12
+12M
+5
GND
C40 1µ
C41 1µ
C42 1µ
C43 1µ
C45 1µ
C46 1µ
C48, C49 2x1000µ/35
C50 1µ
C51 C53 3x2200µ/16
C54, C55 2200µ/16
L5
C50/ 1µ
R51 20mR
R36 2x10mR
R33 360R
C27 1µF/60V
Δ15 5V6
Th2 T6F6
C1, C2 2x0,1µF 250Vca
R1 330K 0,5W
L1
L2 0,1µF/250Vca
C3
C6
C7 ÷ C10
2x2,2nF/250Vca
Δ1 ÷ Δ4 4x600R4P 4x2,2nF 2KV
Th1
R2 27R/3W
L3 110µH
C11 2,2nF
C12 2x100µF 350V
R3 330K 0,5W
Δ13 BA 159
M1
S1
S2
C22/0,1µF/50
Δ14 1N4148
R23 22R
R24 360R
R25 1K
R31 15K
Ci1 B260D
R16 180R 5W
TR 2
C20 68n 50V
L4 4,7µH
C19 µF/60V
T4 BU189
R20 2x22R
R21
R19 100R
C18 2,2nF 2KV
R22 560R/5W
Δ12 BA 159
R18 100R
T3 BD139
C21 2,2nF/50V
R17 4K7
R26 220R
R27 10K
R29 100K
C23 4,7µF 35V
C24 47nF
R28 5K6
C26 47µF
R30 9K01
C25 3,3nF
R32 1K5
R34 1K
R35 2K4
R52 100R
R14 100R
C17 1000µF 35V
R13 120R
Δ10 BA 159
Δ11 BA 159
C28 0,1µF 50V
R37 220R
R49 1K
R48 1K
C34 0,1µ
R50 1K
R44 1K
R43 2K
C30 0,1µ
R42 1K
C29 10µ 35V
C32 10µ
R45 68K
C33 2,2nF
Ci2 BM393
R40 68K
C31 2,2nF
R47 68K
R46 68K
R39 68K
R41 68K
R38 15K
R11 360R
R12 1K5
T1 BC251
R6 1K8
R15 2K4
R10 39R
Δ9 1N4148
C16 10µF/35V
Δ8 1N4148
R9 2K4
TR1
R4 1M
R5 15K/1W
Δ5 BA159
R8 620R
T2 BUX85
C13 470pF 2KV
Δ6 DZ5V1
Δ7 1N4148
C15 10nF
R7 10R
C14 33nF
Sursă Junior XT
703
Rev A.
Schemă electrică
703.910.210


Z 80
CPU
U14
2716
U13
2114
U12
2114
U11
74LS373
U8
74LS374
U9
74LS373
U10
74LS195
U7
74LS193
U21
74LS125
U20
3xLS05
74LS32
74LS14
LS86
BD140
KR 8x1k
2xLED
CAPS
NUM
LOCK
+5V GND KBdata KBclk
La conectorul J2
de la conectorul J3
SW „1" – functionare seriala
„0" – functionare paralela
– tasta Hall
Produs: JUNIOR-XT
Cod: 703
IEPER
APTG
Rev
C
703.910.110
KEYBOARD
Data:05.12.88
Fila: 1/1



Pin conector DIN	Semnal
1	KBC
2	KBD
3	RST
4	GND
5	+5V

Poz	Simbol	Denumirea	Cod	Observatii	Cant.
1		Circuit imprimat	703.910.110 C		1
2	U1	Circuit integrat	74LS14	K555TL2	1
3	U2, U3	Circuit integrat	74LS32	K555LL1	2
4	U4 - U6	Circuit integrat	74LS05	K555LN2	3
5	U9	Circuit integrat	74LS175	K555TM8	1
6	U8, U10	Circuit integrat	74LS373	K555IR22	2
7	U14, U13	Soclu CI 40, 24 pini	779 19021 779 19019		1,1
8	U13	Circuit integrat	I2716	K573RF2	1
9	U14	Circuit integrat	Z80	U880	1
10	U19	Circuit integrat	74LS86	K555LP5	1
11	U20	Circuit integrat	74LS125	K555LP8	1
12	U21	Circuit integrat	74LS193	K555IE9	1
13	R1, R4, R71-R73, R9	Rezistență 10K/5%/0,25W	RPM 3025		6
14	R2, R6, R7, R8, R11-R39, R56, R70	Rezistență 1K/5%/0,25W	RPM 3025		36
15	R5, R6, R3	Rezistență 510Ω/5%/0,25W	RPM 3025		3
16	RR	Rezistență 8×1K/1%	RR 3000		1
17	C1, C9	Condensator 330p/10%/50V	MC 3202		2
18	C2	Condensator 100µ/16V	CTSP 1048		1
19	C8 - C22, C26 - C32	Condensator 100n/50V	MX 3203		7
20	C23 ÷ C25	Condensator 10µ/16V	CTSP 1042		3
21	T1 ÷ T15	Tranzistor SI	BD 140		15
22	D1	Diodă	1N 4148		1
23	D2, D3	LED	MDE 1103R		2
24	R40 ÷ R54	Rezistență 220Ω/5%/0,25W	RPM 3050		15
25		Module compensare H1×1, H1×1/2; H1×1/4, Modul LED			27,32, 3,2
26	SH1 ÷ SH83	Tasta Hall			83
27		Set capace taste			1
28		Cablu torsadat TLTYYA 5×18×0.10	TLTYYA 5×18×0.10		1
29		Mufă DIN tată	201026		1

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